



Cadastral Data Content Standard for the National Spatial Data Infrastructure

VERSION 1.1

Cadastral Subcommittee
Federal Geographic Data Committee

April 1999

Federal Geographic Data Committee

Department of Agriculture ? Department of Commerce ? Department of Defense ? Department of Energy
Department of Housing and Urban Development ? Department of the Interior ? Department of State
Department of Transportation ? Environmental Protection Agency
Federal Emergency Management Agency ? Library of Congress
National Aeronautics and Space Administration ? National Archives and Records Administration
Tennessee Valley Authority

Federal Geographic Data Committee

Established by Office of Management and Budget Circular A-16, the Federal Geographic Data Committee (FGDC) promotes the coordinated development, use, sharing, and dissemination of geographic data.

The FGDC is composed of representatives from the Departments of Agriculture, Commerce, Defense, Energy, Housing and Urban Development, the Interior, State, and Transportation; the Environmental Protection Agency; the Federal Emergency Management Agency; the Library of Congress; the National Aeronautics and Space Administration; the National Archives and Records Administration; and the Tennessee Valley Authority. Additional Federal agencies participate on FGDC subcommittees and working groups. The Department of the Interior chairs the committee.

FGDC subcommittees work on issues related to data categories coordinated under the circular. Subcommittees establish and implement standards for data content, quality, and transfer; encourage the exchange of information and the transfer of data; and organize the collection of geographic data to reduce duplication of effort. Working groups are established for issues that transcend data categories.

For more information about the committee, or to be added to the committee's newsletter mailing list, please contact:

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Preface

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The Subcommittee on Cadastral Data thanks the agencies and individuals that contributed to the content and reviews of this standard.

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Cadastral Data Content Standard for the National Spatial Data Infrastructure - April 1999
Contents

1. Introduction

The Federal Geographic Data Committee was established by Office of Management and Budget Circular A-16 to promote the coordinated development, use, sharing, and dissemination of geographic data.

The Federal Geographic Data Committee is composed of representatives from the Departments of Agriculture, Commerce, Defense, Energy, Housing and Urban Development, the Interior, State, and Transportation; the Environmental Protection Agency; the Federal Emergency Management Agency; the Library of Congress; the National Aeronautics and Space Administration; the National Archives and Records Administration; and the Tennessee Valley Authority. Additional Federal agencies participate on Federal Geographic Data Committee subcommittees and working groups. The Department of the Interior chairs the Subcommittee on Cadastral Data.

Federal Geographic Data Committee subcommittees work on issues related to data categories coordinated under the circular. Subcommittees establish and implement standards for data content, quality, and transfer; encourage the exchange of information and the transfer of data; and organize the collection of geographic data to reduce duplication of effort. Working groups are established for issues that transcend data categories.

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home page: www.fgdc.gov

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1.1 Mission and Goals of Cadastral Data Content Standard

Data content standards are defined by the FGDC Standard Reference Model as standards that provide semantic definitions of a set of objects. Data content standards may be organized and presented in a data model such as an entity-relationship model. The Cadastral Data Content Standard provides semantic definitions of objects related to land surveying, land records, and landownership information.

The mission of the Subcommittee on Cadastral Data for the Cadastral Data Content Standard is:

To provide a standard for the definition and structure for cadastral data which will facilitate data sharing at all levels of government and the private sector and will protect and enhance the investments in cadastral data at all levels of government and the private sector.

Cadastral data are defined as the geographic extent of the past, current, and future rights and interests in real property including the spatial information necessary to describe that geographic extent. Rights and interests are the benefits or enjoyment in real property that can be conveyed, transferred, or otherwise allocated to another for economic remuneration. Rights and interests are recorded in land record documents. The spatial information necessary to describe rights and interests includes surveys and legal description frameworks such as the Public Land Survey System, as well as parcel-by-parcel surveys and descriptions.

The goals for Cadastral Data Content Standard are:

1. To provide common definitions for cadastral information found in public records, which will facilitate the effective use, understanding, and automation of land records,
2. To standardize attribute values, which will enhance data sharing,
3. To resolve discrepancies related to the use of homonyms and synonyms in federal land record systems, which will minimize duplication within and among those systems,
4. To provide guidance and direction for land records and land surveying professionals on standardized attribute values and definitions, which will improve land records creation, management, and use, and

5. To use participatory involvement in the standard development to reach out to non-federal organizations which will encourage broadly based application of the standard.

1.2 Relationship to Existing Standards

The Cadastral Data Content Standard integrates with existing standards as much as possible. As examples, Federal Information Processing Standards Publications were used where possible. All geospatial metadata requirements for this standard will conform to the Federal Geographic Data Committee's Content Standard for Digital Geospatial Metadata.

Other interagency standards, such as the US Geological Survey and Bureau of Land Management Public Land Survey System meridian definitions, were adopted when appropriate. This conserved the investment the agencies had in existing automated data and met the requirements of OMB Circular A-119, which mandates the use of existing standards where ever possible. Additionally, many local and state government standards were reviewed for inclusion.

In some cases neither interagency nor intergovernmental standards existed. In these cases The Cadastral Data Content Standard produced a standard that could be adopted for interagency and intergovernmental acceptance and use. This was possible because the definitions were written to accommodate as many requirements as possible.

There were other cases where there is overlap with other Federal Geographic Data Committee Subcommittees. The need for standards for Geopolitical entities, addresses, agency names, and private organizations are being handled by other FGDC Subcommittees. As other Federal Geographic Data Committee Subcommittees complete standards the linkages will be completed.

This update to the standard, April 1999 Version 1.1 updates the original version, December 1996 version of the standard.

1.3 Description of Standard

The Cadastral Data Content Standard forms the basis for automating the legal elements of cadastral data found in public records. The standard defines attributes or elements that are in landownership related documents. It standardizes domains, which are allowable entries, for many elements and provides an interagency definition for each element. These two standardization efforts, domains and definitions, should increase the uniformity of cadastral records without diminishing the opportunity for automation.

The standard is does not limit or filter the information that can be included. For example, a distance can be entered using any unit of measure such as foot, chain, or vara. The standard does not

require converting all distances to a common unit of measure. They are automated in the standard as they occur in the public record.

The standard contains sufficient information to convert record information to a common basis. While it is possible to automate distances that have any unit of measure, the units must be indicated. Overall, this requirement adds a significant number of attributes to the standard. Within these added attributes there is an attempt to define specific domains so future automation can rely on the types of conversions that will be supported.

The rules and specifications for automating cadastral information in the standard depend in part on the information contained in the landownership records. That is, it is not possible to automate information that is not available, but all information that is available should be able to be automated. For example, if a parcel is described in a deed as Lot 2 of Green Acre Subdivision in Badger County and the bearings and distances around the parcel are not included in the deed, then it is not possible to require perimeter measurements.

Other rules for putting data into the standard are based on data integrity. One type of integrity is that all information must be referenced to a source document. For example, if bearings and distances are included, they must be referenced to a source document. Another type of integrity maintains the relationships among the entities and attributes. For example, an entity that relates a parcel to each of its boundaries must have both a parcel identifier and a boundary identifier.

1.4 Applicability and Intended Uses of Standard

The Cadastral Data Content Standard is intended to support the automation and integration of publicly available land records information. It is intended to be useable by all levels of government and the private sector. The standard contains the standardization of entities and objects related to cadastral information including survey measurements, transactions related to interests in land, general property descriptions, and boundary and corner evidence data. Any or all of these applications are intended to be supported by the standard.

The intended geographic scope of the standard is all fifty states of the United States including all onshore cadastral as well as offshore Outer Continental Shelf Blocks. Applicability of this standard in other geographic areas and business processes, such as the Insular Areas of the United States and non-Outer Continental Shelf Block marine applications has not been determined. Additions of this standard to other areas and business processes will be determined through the maintenance procedures described in Section 1.6 of this document.

The standard is not intended to reflect an implementation design. An implementation design requires adapting the structure and form of these definitions to meet application requirements.

The standard can be implemented as either a stand alone data system for measurement based systems, for transactional information, or as an attribute data system connected to a geographic information system. The standard does not contain the topological linkages and spatial features required to build and operate a geographic information system.

1.5 Standard Development Procedures

1.5.1 Participants

The table below lists the members of the Subcommittee on Cadastral Data who participated in the standard development.

Name	Agency
Linda Brooks	Bureau of Land Management
Patrick Carroll	Fish and Wildlife Service
Michael Domaratz	FGDC Secretariat
Jeff Egan	Tri-Services Technology Center
Theresa Ely	Bureau of Land Management
John Guthrie	USGS National Mapping Division
Paula Langley	Bureau of Land Management
Steve McDevitt	US Army Corps of Engineers
Dennis Moonier	US Forest Service
Yvonne Morehouse	Minerals Management Service
David Moyer	National Geodetic Survey
Richard Naito	Minerals Management Service
Denise Perreca	USGS National Mapping Division
Thomas Phelps	Naval Facilities Engineering
Louise Precosky	Bureau of Land Management
Randy Roberts	US Army Corps of Engineers
Paul Rogers	Minerals Management Service
Gary Speight	Bureau of Land Management
Lee Thormahlen	Minerals Management Service
Margaret Watry	US Forest Service

The Technical Advisory Group was assisted by Nancy von Meyer, Fairview Industries. John Moeller, Bureau of Land Management, chaired the Subcommittee on Cadastral Data during the standard development.

In addition to these participants, representatives from the National Association of Counties and the National States Geographic Information Council have participated as members of the Cadastral Subcommittee since the standard development.

1.5.2 Comments and Reviews

A review was conducted of cadastral and land records related data and data standards from participating federal agencies. This review indicated there was significant duplication in collection activities and inconsistent standards for coding and definitions of cadastral related data among federal agencies. A comparison of the results from the federal agencies and similar information from selected counties indicated that there was a significant volume of cadastral data collected and maintained in local governments that state and federal agencies could use, if there were standards in place.

As the standard developed, draft versions were circulated among federal agencies and interested parties outside the federal government. Articles were published in various land professional and geographic information systems association newsletters describing the standard and asking for input. Open forums were held at several national and regional conferences. Groups consisting of representatives from county government, data conversion businesses, state agencies, and local agencies have participated in follow up seminars and discussions in states from Florida to Alaska. The results of review sessions were incorporated into the standard.

In March 1994 Version 1 of the standard was released for comment and review. Copies were mailed to over 500 potential reviewers from all levels of government, academia and the private sector. Fifty two responses were received on Version 1 of the Cadastral Data Content Standard. Each response and comment was numbered, read, discussed, and answered. A document was produced summarizing all comments and responses.

In September 1994 Version 2 of the standard was completed and submitted to the FGDC. The FGDC released the document for public comment and announced a review period of January 1995 to May 31, 1995 in the Federal Register. Over 1,000 copies were sent to potential reviewers and numerous requests were served through digital access. Twenty-seven documented comments were received by June 15, 1995. These comments were reviewed and incorporated into the standard.

1.6 Maintenance of Standard

The Federal Geographic Data Committee, Subcommittee on Cadastral Data will manage the maintenance of the standard described in this document. The United States Department of the Interior - Bureau of Land Management - Geographic Sciences Team currently leads the Federal Geographic Data Committee Subcommittee on Cadastral Data. The Subcommittee expects a continuing maintenance process that will result in updates to domains of values as needed to meet user needs.

This document is the initial definition of the Cadastral Data Standard. It exists in an environment of rapidly evolving user needs and mission requirements. This standard will, therefore, be revised within

18 months of its initial issue, to incorporate the additions and revisions that are evaluated and validated during the first year of implementation.

Requests for change may be submitted by any user of the standard. Requests shall contain:

- Title
- Date of Submission
- Version number and date of the Standard
- Page reference
- A description of the problem (with an example, if possible)
- The suggested change (with an example of its application)
- Point of contact (name and address)

Requests shall be made to the FGDC Subcommittee on Cadastral Data. A World Wide Web site accessible through the FGDC Home Page and Cadastral Subcommittee Home Page will contain a form to assist with writing change requests.

This version of the standard reflects changes that have been submitted through the maintenance process.

2. Introduction

The Cadastral Data Content Standard in this document is shown as an entity relationship diagram. Entity relationship diagrams illustrate the entities, their attributes, and their associations.

The data models are not implementation data models. Implementation requires modifying the data model to best fit the operating software. This process is called *denormalization* and is the process of combining entities into tables in a database that optimize the database operation.

The data models describe the definitions or semantics of cadastral information. Entity relationship diagrams are a shorthand method for showing the associations among various objects and hence the definitional relationships of the objects. The diagram conventions for the entity relationship diagram in the Cadastral Data Content Standard are described in the following sections.

2.1 Reading the Diagrams

The entity relationship diagram illustrates three components of an object definition: Entities, Associations, and Cardinality. All three are important to the semantic definition of the object in the standard.

2.1.1 Entities

A data entity is any object about which the organization chooses to collect data. Attributes are additional information about the entity. Entities and their attributes are defined in a data dictionary.

Data entities are shown in boxes on the entity relationship diagram. In the Cadastral Data Content Standard the entity name is underlined and is the first item listed in the box. The entity attributes are listed below the entity name. The entities and their attributes are defined in Part 3 of the Standard.

2.1.2 Associations

Associations describe how the data entities are related to each other. The associations in the data model for this Standard are: one-to-one, one-to-many, and many-to-many.

One-to-one association (1:1) means that, at a point in time, a given value of A has one and only one value of B. For example, one person has one social security number. The person and their social security number is a one-to-one association. Most one-to-one associations are described as a unique attribute of an entity.

One-to-many association (1:m) means that, at a point in time, item A could have an arbitrary number of items C associated with it. For example, a geodetic control mark may have many names or

mark identifiers, such as the name stamped on the cap and location identifiers in a database. In this case the geodetic mark has a one-to-many association with its names and identifiers.

Many-to-many associations (m:m) occur when, at a point in time, a given value is associated with many other values and the converse is also true. For example, one parcel can be located in many administrative districts such as fire, police, school, and emergency response. Conversely, one administrative district is composed of many parcels.

Figure 2-1 illustrates the three associations described above. In Figure 2-1 the "crows foot" symbol indicates many and the single line indicates one.

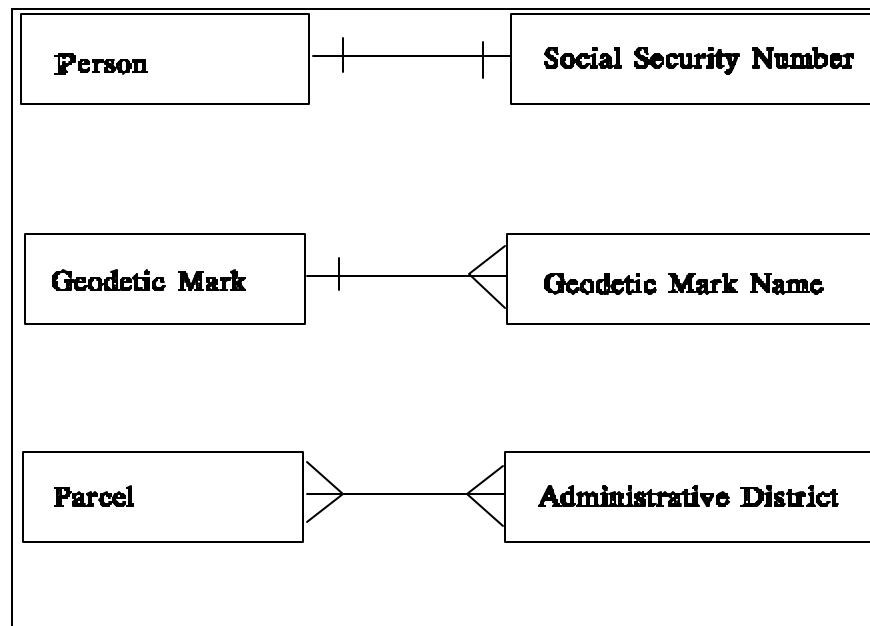


Figure 2-1 - Entities and Associations

2.1.3 Cardinality

Cardinality in the context of this document means whether the association between the two entities is mandatory or optional. For example, a forest must have more than one tree, but a tree may be in a forest. Cardinality is the must and may. *The cardinality aspects of the data model are shown as a circle for optional and a line for mandatory.* The association between a forest and a tree with the cardinality is shown in Figure 2-2.

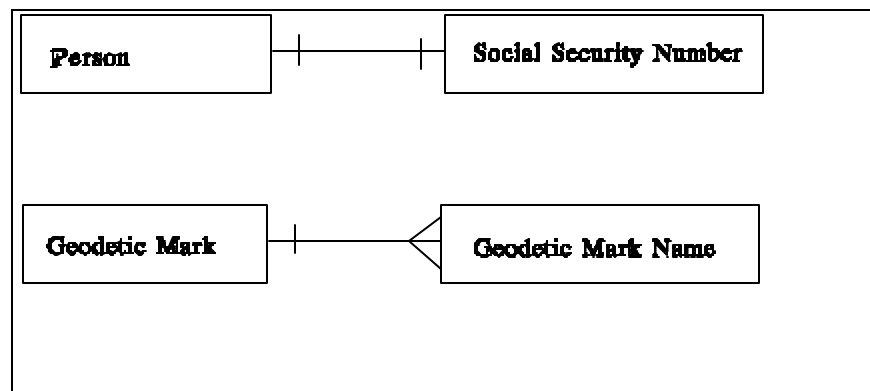


Figure 2-2 - Entities, Associations, and Cardinality

In Figure 2-2 a line has been added to the many symbol and a circle has been added to the single symbol. The associations and their cardinality are read in a clockwise manner, which means the associations in Figure 2-2 are read as shown in Figure 2-3.

One tree may be within a forest.

One forest must contain many trees

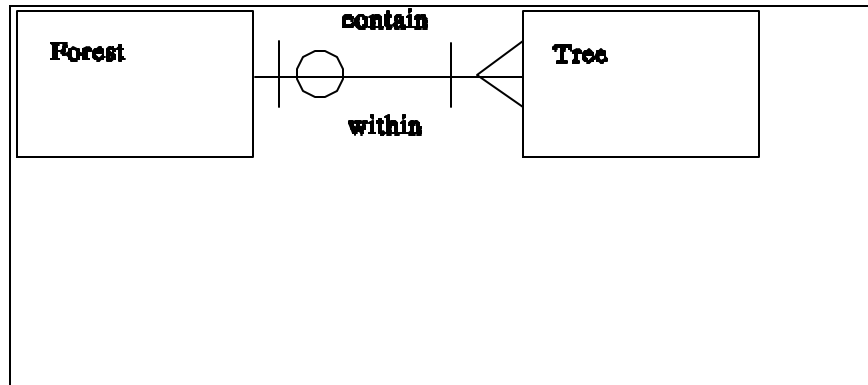


Figure 2-3 - Reading Entities, Associations, and Cardinality

The cardinality and association symbols used in the Standard are shown in Figure 2-4.

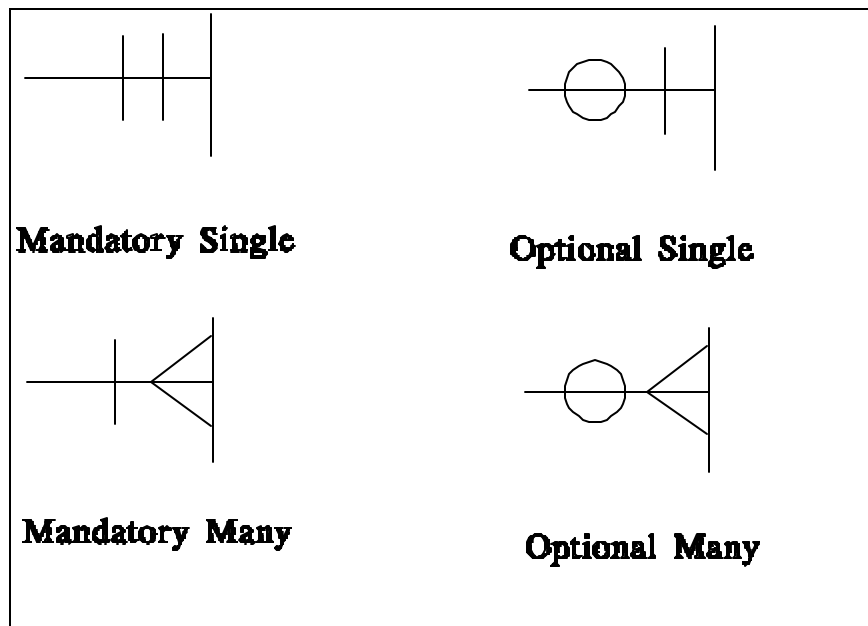


Figure 2-4 - Cardinality in the Standard

2.2 Attributes

Attributes are the properties and characteristics of entities. These are listed in the box with the entity name. In many entities the first attribute has a name that ends with an ID, such as Forest ID. This is an attribute that serves as an identifier for each unique record or entry in the entity and is called a *primary key*. An example of a completed model with the attributes is shown in Figure 2-5.

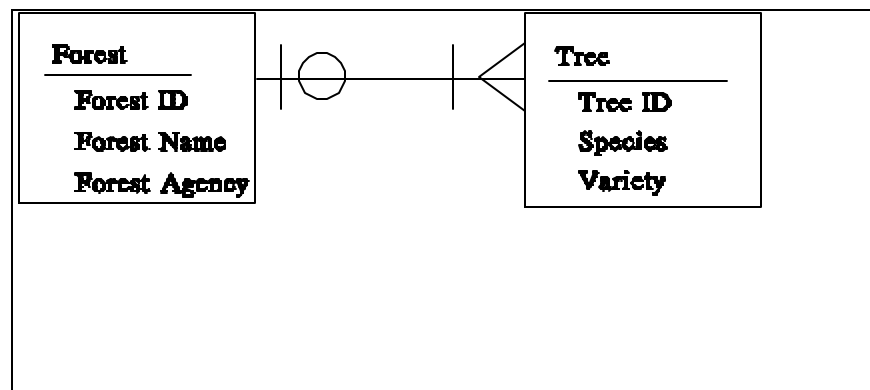


Figure 2-5 - Completed Data Model Tree and Forest

Another kind of attribute is a *foreign key*. A foreign key is a primary key from another entity that points to a record in the related entity. For example, Corner ID may be a primary key for an entity Corner and Boundary ID a primary key for an entity Boundary as shown in Figure 2-6. The intersecting entity or relationship between Corner and Boundary is shown in Figure 2-6 as the entity Corner Boundary. Within Corner Boundary are two foreign keys. One is Corner ID which points to an entry in the Corner entity and the other is Boundary ID which points to an entry in Boundary. Again, this is shown in Figure 2-6. The entity Corner Boundary describes which corners are attached to which boundaries.

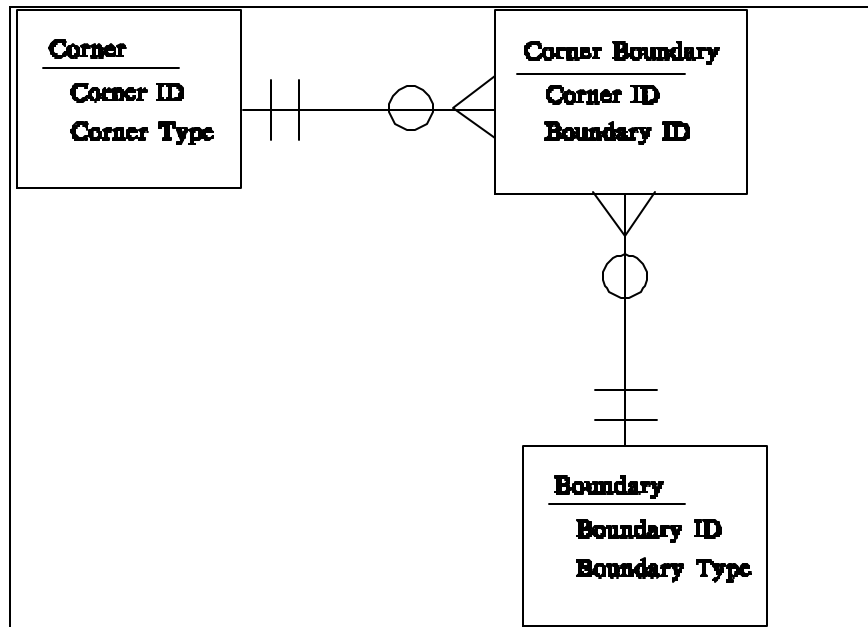


Figure 2-6 - Primary and Foreign Keys

3. Introduction

This section describes the definitions for the entities and attributes in the Content Data Standard. Each entity has a definition and an accompanying set of attributes. The attributes have a definition and a listed domain of values. In conformance with Federal Geographic Data Committee (FGDC) standards requirements, each domain of value includes a free text option for situations that are not served by the listed domain of values.

The domain of values eliminates the use of codes and minimizes the use of abbreviations. Abbreviations are only used for cardinal directions, such as N for North. In a physical implementation of this standard an organization may use abbreviations for data entry, data query, or display. The standard intends to standardize the full domain value, not an implementation coding scheme.

A supplementary informative annex for Federal Domain of Values is provided for some attribute values in the standard.

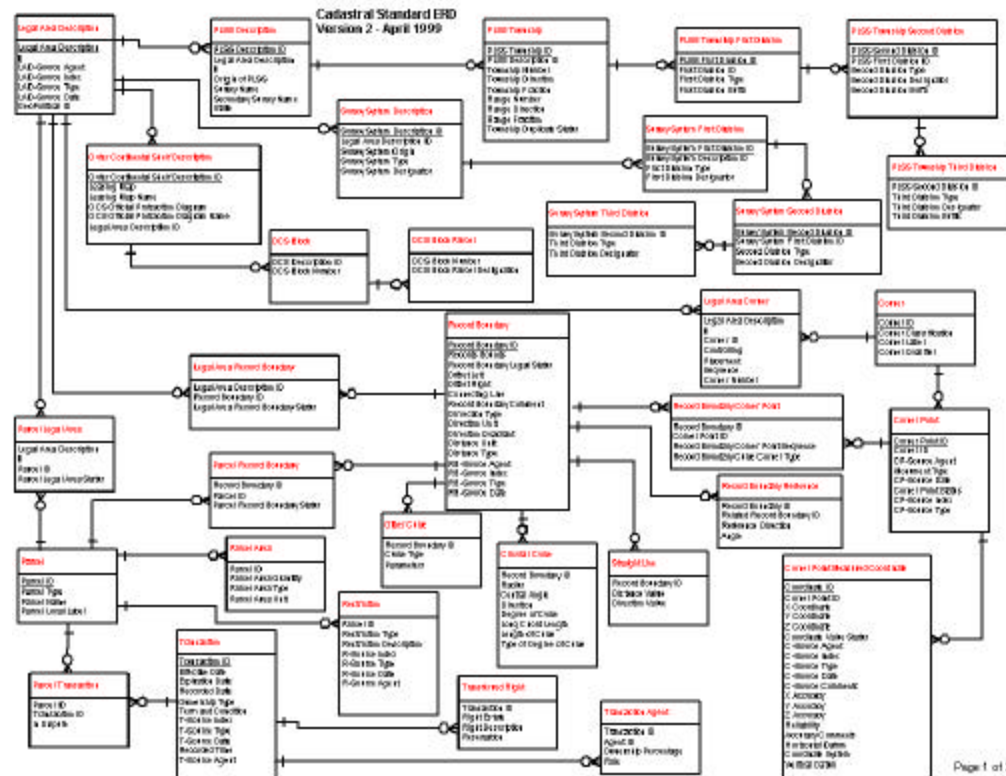
An index for attributes is provided at the end of this section.

3.1 Entity Relationship Diagram

Figure 3-1 is the entity relationship diagram for the entity and attribute definitions. Part 2 of the Standard describes how to read and understand the entity relationship diagram convention used in Figure 3-1.

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Entities and Attributes

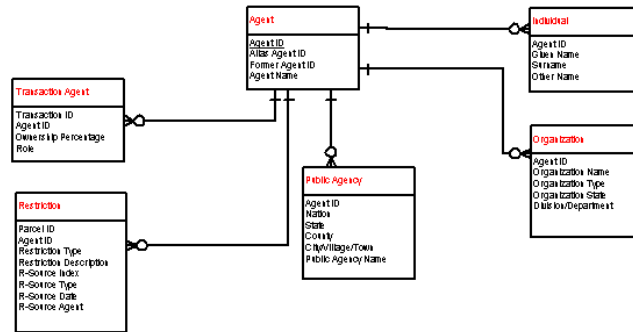


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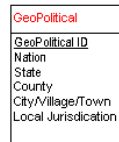
Entities and Attributes

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Agent and Source Agent Attributes



Geopolitical Attributes



Page 2 of 2

3.2 Entity and Attribute Definitions

The Entity Relationship Diagram in Figure 3-1 illustrates the relationship among the attributes and entities in the Cadastral Data Content Standard. The following list is in alphabetical order by entity name. It contains definitions for entities and attributes as well as domain values for attributes. Domain values list the suggested content for attributes. Each domain also includes a free text which allows the user to add domain values which are not listed.

An attribute value that is blank or null does not have a meaning. In this standard, if an attribute has a value, the value should be entered. There are implementations where not specified means that the attribute has a value, but no value has not been filled in because it is not known. It is also possible to have a not applicable value for a domain which means this attribute is not applicable to this instance of the entity. This implementation is often used when to clarify why an attribute value is null. The Origin of Public Land Survey System has two unique attribute values of not applicable and unspecified. These are included in this domain list to be compliant with existing information at the United States Geological Survey.

The references for definitions are noted. If there is no citation, the Subcommittee on Cadastral Data used a variety of agency and non-agency publications to derive a common definition. All references used for these definitions are included in the list of references.

Acronyms and initials have been removed as much as possible from all definitions. The exceptions are OCS for Outer Continental Shelf in the entity relationship diagram and OPD for Official Protraction Diagram. These initials were used since the people using this data are familiar with these identifications and the diagram size was more easily handled with the initialization.

Primary Keys are listed in most entities. These are normally sequential non-intelligent keys that are numeric and are assigned by a computer system to track individual data base records. It is standard data base design practice to eliminate the intelligence, or attribute values, that are imbedded in a primary key. Another type of key, called a concatenated key, may be used in place of a primary key. A concatenated key is a combination of all the attributes needed to make a unique identifier for each record in a physical data base. There is no attempt in this standard to standardize the values for these sequential keys.

An accompanying informative annex for lists of domain values is the Federal Domain of Values. These domain value lists accompany some of the attributes and are applicable to federal implementation.

AGENT

An Agent is an individual, organization, or public agency that holds rights, interests, or restrictions in land, holds or files land records, or has established a land description or monument.

ATTRIBUTES:

Agent ID

The Agent is the primary key, which identifies each record in the Agent entity.

Domain: numeric

Alias Agent ID

The Alias Agent has additional information about the Agent. Typically this attribute is used to point to alternate name by which the Agent is also known.

Domain: numeric

Former Agent ID

The Former Agent points to another record in the Agent entity, and typically points to a previous name by which the Agent was known.

Domain: numeric

Agent Name

A text name for the agent that can be used for display or printing or interface uses. The agent name comes from the Individual, Organization, or Agencies and is a concatenation of these values. The Agent Name at this level is redundant and does not reflect a standard requirement. It is included to assist with physical implementation.

Domain: text

CIRCULAR CURVE

A Circular Curve is a segment of the circumference of a circle. Circular curves are assumed to be concave. Circular curves are a special instance of a curve and are included as a separate entity because these are the most commonly occurring curves in Cadastral boundaries.

ATTRIBUTES:

Record Boundary ID

The Record Boundary ID is a foreign key, which points to a record in the Record Boundary entity, where information about the Record Boundary can be found.

Domain: numeric

Radius

The Radius is the distance from the center of the curve to any point on the circular curve.

Domain: numeric

Central Angle

The Central Angle of a Circular Curve is the angle at the center of radius of a circular arc included between the radii, passing through the beginning and ending of the arc.

Domain: numeric

Direction

The Direction of a Circular Curve is defined as the direction the curve tends, as stationing along the curve increases.

Domain: Left, Right, North, East, South, West, free text

Degree of Curve

The Degree of Curve arc definition is the central angle subtended by a circular arc of 100 feet.

The Degree of Curve chord definition is the central angle subtended by a chord of 100 feet.

Domain: numeric

Long Chord Length

The Long Chord Length is the straight line distance connecting the beginning of the curve and the end of the curve.

Domain: numeric

Length of Curve

Length of Curve is arc distance of the Circular Curve.

Domain: numeric

Type of Degree of Curve

The Type of Degree of Curve is either the arc definition or the chord definition.

Domain: Arc, Chord

CORNER

A Corner is a legal location. It may mark the extremity of Parcel or a Parcel Legal Area. A Corner may have multiple Corner Points, which serve as measures of markers for the legal location of the Corner.

Corner ID

The Corner ID is the primary key, which identifies each record in the Corner entity.

Domain: numeric

Corner Classification

The Corner Classification describes the specific Corner. The informative appendix for the Corner Classification domain is Appendix 1.

Domain: Angle Point, Auxiliary Meander Corner, Center Quarter Section Corner, Intersection Point, Crossing Closing Corner, Location Corner, Location Monument, Meander Corner, Mile Corner, Mile Post, Point on Line, Quarter-Corner, Section Corner, Special Meander Corner, Subdivision of Section Corner, Township Corner, Witness Point, free text

Corner Label

The Corner Label is a name describing the legal location. For Public Land Survey System Corners, these are names for Corners on the base land net. Other labels relate to Corners of special surveys or private sector land subdivision surveys.

Domain: free text

Corner Qualifier

The Corner Qualifier is used to identify additional information about the relative placement of the Corner. The informative appendix for the Corner Qualifier domain is Appendix 1.

Domain: Closing, Witness, Auxiliary, Amended, free text

CORNER POINT

A Corner Point is a point, which marks the ends of Record Boundaries or the extremities of a Legal Area. A Corner Point may or may not be monumented and is any representation of a Corner.

ATTRIBUTES:

Corner Point ID

The Corner Point ID is the primary key, which identifies each record in the Corner Point entity.

Domain: numeric

Corner ID

The Corner ID is a foreign key, which points to a record the Corner entity, where information about the Corner can be found.

Domain: numeric

Monument Type

The Monument Type describes the material, composition, and other characteristics of the physical corner marker, if present. The monument type may also be an indication of the cartographic symbol the Corner Point is representing, if the Corner Point is derived from a digitized representation.

Domain: Aluminum Cap, Aluminum Marker, Axle, Bolt, Brass Cap, Cap-And-Bolt, Concrete Post, Disk, Fence Post, Iron Pipe, Iron Post, Marked Stone, Metal Rod, Nail, Pk Nail, Rebar, Rock, Rock Cairn, Steel Pin, Tree, Water Cap, Wooden Hub, Wooden Stake, free text

Monument Date Set

The Monument Date Set is the date the monument was set by the Agent.

Domain: date, free text

CP-Source Agent

The Source Agent is the individual or organization, which established the Corner Point.

Domain: Text

CP-Source Index

The Source Index is the value assigned by a Source Agent to a monument or corner point record to file or identify the record where information about the corner point is kept.

Domain: Text

CP-Source Type

Source Type describes a family of documents, files, images, or other which generally conform to the same specifications or having some common unifying characteristic. The domain for Source Type is in Appendix 4.

Domain: Text, see Appendix 4

CP-Source Date

The Source Date is the date of the corner point.

Domain: Date

Corner Point Status

The Corner Point Status describes the Corner Point relationship to other Corner Points at the same Corner.

Domain: replaces, junior, senior, multiple, current, unknown, free text

CORNER POINT MEASURED COORDINATE

The Corner Point Measured Coordinate is a X,Y; X,Y,Z;; or Z value for a Corner Point.

ATTRIBUTES:

Corner Point ID

The Corner Point ID is a foreign key which points to a record in the Corner Point entity, where information on the Corner Point can be found.

Domain: numeric

X Coordinate

This is the X Coordinate value or easting for a coordinate set.

Domain: numeric

Y Coordinate

This is the Y Coordinate value or northing for a coordinate set.

Domain: numeric

Z Coordinate

This is the Z Coordinate value or elevation, which may occur with or without associated X and Y values.

Domain: numeric

Coordinate Value Status

The Coordinate Value Status indicates whether the measured coordinate was obtained as part of a legal description and is the legal value for the position of the corner point and the corner or whether the measured coordinate value is provided as informational.

Domain: Record, Informational, free text

C-Source Agent

The Source Agent is the individual or organization, which determined the coordinate value.

Domain: Text

C-Source Index

The Source Index is the value assigned by a Source Agent to a coordinate value to file or identify the adjustment or survey from which the coordinate value originated.

Domain: Text

C-Source Type

Source Type describes a family of documents, files, images, or other which generally conform to the same specifications or having some common unifying characteristic. The domain for Source Type is in Appendix 4.

Domain: Text, see Appendix 4

C-Source Date

The Source Date is the date of the coordinate values.

Domain: Date

C-Source Comments

The Source Comments are any additional notes or information about the methods used to obtain a measurement or the accuracy of the resulting measurements or coordinates. May include a description of adjustment methods used to determine the coordinates or special manipulation of the measurements to obtain the coordinates.

X Accuracy

The accuracy of the X or East Coordinate expressed as the X component of a 95% percent error ellipse. Accuracy is the closeness of results of observations, computations or estimates to the true values or the values accepted as being true.

Domain: numeric

Y Accuracy

The accuracy of the Y or North Coordinate expressed as the Y component of a 95% percent error ellipse. Accuracy is the closeness of results of observations, computations or estimates to the true values or the values accepted as being true.

Domain: numeric

Z Accuracy

The accuracy of the Z or Elevation expressed as the semi-major axis of the 95% percent error ellipse. Accuracy is the closeness of results of observations, computations or estimates to the true values or the values accepted as being true.

Domain: numeric

Reliability

The reliability is a measure of the total accuracy of a coordinate value. The FGDC Point Positioning Standard describes a circle of error for this value.

Domain: numeric

Accuracy Comments

The Accuracy Comments are any statements or qualifications about the accuracy of a coordinate value.

Domain: free text

Horizontal Datum

The horizontal datum is the identification given to the reference system used for defining the coordinates of points. This definition comes from the FGDC Digital Geospatial Metadata.

Domain: North American Datum of 1927, North American Datum of 1983, free text

Coordinate System

The reference frame or system from which linear or angular quantities are measured and assigned to the position that a point occupies. (From FGDC Digital Geospatial Metadata)

Domain: free text, See FGDC Digital Geospatial Metadata

Vertical Datum

The vertical datum is the identification given to the reference system used for defining the elevation of points. This definition comes from the FGDC Digital Geospatial Metadata. The vertical datum used in this standard matches the Altitude Datum in the FGDC Digital Geospatial Metadata Standard, which is the identification given to the surface taken as the surface of reference from which altitudes are measured.

Domain: National Geodetic Vertical Datum of 1929, North American Vertical Datum of 1988, free text

INDIVIDUAL

A single person, acting on behalf of himself, as distinguished from a group, corporation, or partnership.

ATTRIBUTES:

Agent ID

The Agent ID is a foreign key, which points to a record in the Agent entity where information on the Agent can be found.

Domain: numeric

Given Name

The name of a person assigned at birth, baptism, or adoption excepting the surname.

Domain: free text

Surname

The Family Name inherited, or assigned at birth or adoption, or through a legal name change or marriage.

Domain: free text

Other Name

Any other part of the formal name that is not included in the Given Name or the Surname. It includes hyphenated portions of surnames and other legal names.

Domain: free text

LEGAL AREA CORNER

The Legal Area Corner describes the relationship between the Corner and the Legal Area.

ATTRIBUTES:

Legal Area Description ID

The Legal Area Description ID is a foreign key, which points to an occurrence in the Legal Area Description entity, where information on the Legal Area Description can be found.

Domain: numeric

Corner ID

The Corner ID is a foreign key, which points to an occurrence in the Corner entity, where information on the Corner can be found.

Domain: numeric

Controlling

Controlling indicates the method by which a Corner controls the subsequent division of a Legal Area.

Domain: Distance, Direction, Distance and Direction, None, free text

Placement

Placement describes the relative position of a Corner in a Legal Description.

Domain: C, N, S, E, W, NW, NE, SE, SW, NNE, ENE, ESE, SSW, SSE, WSW, WNW, NNW, SC, EC, WC, NC, free text

Note: in the domain C stands for center

Sequence

The Sequence describes the location of the Corner within the Legal Area.

Domain: 000 <= sequence <= 999

Corner Number

Corner number is the serial number assigned to corners on original survey documents.

Domain: 000 <= corner number <= 999, free text

LEGAL AREA DESCRIPTION

A Legal Area Description provides the structure for assembling the components of a single legal description into one. The components of the legal area description can be used to build legal descriptions based on areas. For example, a legal area description could be a lot in a subdivision and that lot may be contained in a Public Land Survey System Area.

ATTRIBUTES:

Legal Area Description ID

The Legal Area Description ID is the primary key, which identifies each record in the Legal Description entity.

Domain: numeric

Geopolitical ID

The Geopolitical ID is a foreign key, which points to an occurrence in a geopolitical entity, where information on the geopolitical area can be found.

Domain: numeric

LAD-Source Agent

The Source Agent is the individual or organization, which determined the legal area description.

Domain: Text

LAD-Source Index

The Source Index is the value assigned by a Source Agent to a legal area description to identify the source from which the legal area description originated.

Domain: Text

LAD-Source Type

Source Type describes a family of documents, files, images, or other which generally conform to the same specifications or having some common unifying characteristic. The domain for Source Type is in Appendix 4.

Domain: text, See Appendix 4

LAD-Source Date

The Source Date is the date of the legal area description.

Domain: Date

LEGAL AREA RECORD BOUNDARY

The Legal Area Record Boundary is an intersecting entity between the Legal Area Description and the Record Boundary entities. It describes the extent of a Legal Area in terms of each boundary segment.

ATTRIBUTES:

Legal Area Description ID

The Legal Area Description ID is a foreign key which points to an occurrence in the Legal Area Description entity, where information on the Legal Area can be found.

Domain: numeric

Record Boundary ID

The Record Boundary ID is a foreign key which points to an occurrence in the Boundary entity, where information on the Record Boundary can be found.

Domain: numeric

Legal Area Record Boundary Status

The Legal Record Boundary Area Status describes the relationship of the Record Boundary to the Legal Area.

Domain: Update, Continuation, Replaced, free text

ORGANIZATION

An Organization is a legal entity created by or under the authority of the laws of a State or Nation.

ATTRIBUTES:

Agent ID

The Agent ID is a foreign key, which points to a record in the Agent entity where information on the Agent can be found.

Domain: numeric

Organization Name

The identifying title or label for the organization as stated on the Organization's legal documents.

Domain: free text

Organization Type

The Organization Type identifies the tax status of the Organization.

Domain: Non-Profit, Regulated, Exempt, Bankrupt, Profit, free text

Organization State

The State which created the legal organization entity.

Domain: Federal Information Processing Standards Publication 5-2

Division/Department

The Department or Division is a further indicator of the precise sub-organization.

Domain: free text

OTHER CURVE

Other Curve is any non-straight segment of a parcel or legal area that is also not a circular curve.

ATTRIBUTES:

Curve Type

The Curve Type indicates the mathematical form of the Other Curve.

Domain: Conic Parabola, Conic Ellipse, Conic Hyperbola, Logarithmic Spiral, Archimedean Spiral, Hyperbolic Spiral, N-Leafed Rose, Lemniscate, Cycloid, Four Cusp Hypocycloid, Cardioid, Probability, Catenary, Logarithmic, Exponential, Sine, Tangent, Secant, and free text.

Parameters

The parameters are the lists of values that are necessary to describe the other Curve. The parameter list includes the definition of the parameter, the parameter value and the equation used.

Domain: free text

Record Boundary ID

The Record Boundary ID is a foreign key which points to a record in the Record Boundary entity, where information about the Record Boundary can be found.

Domain: numeric

OUTER CONTINENTAL SHELF BLOCK

An Outer Continental Shelf Block is an approved subdivision of the Outer Continental Shelf as depicted on Outer Continental Shelf Official Protraction Diagrams or Leasing Maps. If an offshore boundary line(s) intersects an Outer Continental Shelf Block, area subdivisions are created. These boundary coordinates and area subdivisions are portrayed in detail on a Supplemental Official Outer Continental Shelf Block Diagram.

ATTRIBUTES:

Outer Continental Shelf Description ID

The Legal Area Description ID is a foreign key which points to a record in the Outer Continental Shelf Description entity, where information about the Outer Shelf Continental Description can be found.

Domain: numeric

Outer Continental Shelf Block Number

The Outer Continental Shelf Block Number is the identifier for an Outer Continental Shelf Block on an Outer Continental Shelf Protraction Diagram or Leasing Map.

Domain: numeric, alpha-numeric

BUSINESS RULES:

1. Outer Continental Shelf Blocks numbered less than 6000 are on the North American Datum of 1927 (NAD 27) and may be depicted on Outer Continental Shelf Official Protraction Diagrams or Leasing Maps."
2. Outer Continental Shelf Blocks numbered greater than 6000 are on the North American Datum of 1983 (NAD 83) and are depicted on Outer Continental Shelf Official Protraction Diagrams.

OUTER CONTINENTAL SHELF BLOCK PARCEL

Outer Continental Shelf Blocks can be subdivided into units for leasing, management, or resource management purposes. This entity describes those subdivisions.

ATTRIBUTES:

Outer Continental Shelf Block Parcel Designator

The Outer Continental Shelf Block Parcel Designator is one or two letters uniquely identifying the subdivisions of an Outer Continental Shelf Block.

Domain: free text

Outer Continental Shelf Block Number

The Outer Continental Shelf Block Number is a foreign key which points to a record in the Outer Continental Shelf Block entity, where information about the Outer Continental Shelf Block can be found.

Domain: numeric

OUTER CONTINENTAL SHELF DESCRIPTION

The Outer Continental Shelf Description contains attributes for the primary division of the Outer Continental Shelf into describable areas.

BUSINESS RULES:

1. Outer Continental Shelf Descriptions are divided into either Outer Continental Shelf Official Protraction Diagrams or Leasing Maps.

ATTRIBUTES:

Outer Continental Shelf Description ID

The Outer Continental Shelf Description ID is the primary key, which identifies each record in the Outer Continental Shelf Description ID entity.

Domain: numeric

Leasing Map Designator

Outer Continental Shelf Leasing Maps are cadastres based on a coastal State's NAD 27 State Plane Coordinate System. The seaward projection of a State Plane Coordinate System onto the Outer Continental Shelf is based on the Lambert Conformal Conic Projection. These diagrams depict approved subdivisions of the Outer Continental Shelf in survey feet offshore of portions of California, Louisiana, and Texas.

The Leasing Maps are designated by alpha-numeric codes. The first two character positions are alpha characters that correspond to the two letter abbreviation for the State, LA for Louisiana, TX for Texas, and CA for California. Subsequent characters are alpha-numeric characters for the Map.

Domain: free text

Leasing Map Name

The Leasing Map Name is the name of the map as it appears on the actual Lease Map. Area names for Leasing Maps were originally assigned by the Bureau of Land Management.

Domain: free text

Outer Continental Shelf Official Protraction Diagram

Outer Continental Shelf Official Protraction Diagrams are constructed on the Universal Transverse Mercator grid system. They are diagrams showing approved subdivisions of the

Outer Continental Shelf. For more information see Explanatory Note 1 at the end of this section.

Domain: free text

Outer Continental Shelf Official Protraction Diagram Name

The Outer Continental Shelf Official Protraction Diagram Name is the official geographic or proper name assigned by the U.S. Board on Geographic Names to the specific portion of the Outer Continental Shelf depicted on the Outer Continental Shelf Official Protraction Diagram. Outer Continental Shelf Official Protraction Diagrams without names certified by the U.S. Board on Geographic Names remain unnamed."

Domain: free text

Legal Area Description ID

The Legal Area Description ID is a foreign key which points to a record in the Record Boundary entity, where information about the Legal Area Description can be found.

Domain: numeric

PARCEL

A Parcel is a single cadastral unit, which is the spatial extent of the past, present, and future rights and interests in real property.

ATTRIBUTES:

Parcel ID

The Parcel ID is the primary key, which identifies each record or occurrence in the Parcel entity.

Domain: numeric

Parcel Type

Parcel Type describes the function, purpose, resource or collective purpose for a parcel. The Parcel Type applies to the entire parcel.

Domain: Ownership, Taxation, Land Use, Land Management Unit, Named Unit, Zoning, free text

Parcel Name

The Parcel Name is an identifying name or number for a Parcel. It may also be a project number or any other identifier for a Parcel.

Domain: free text

Parcel Local Label

Local governments or other organizations may have an identifying number for parcels, used for local administrative purposes. This attribute may be used to refer to other local databases.

Domain: free text

PARCEL AREA

The Parcel Area describes the quantity and type of two-dimensional space included in the Parcel.

ATTRIBUTES:

Parcel ID

The Parcel ID is a foreign key which points to a record in the Parcel entity, where information on the Parcel can be found.

Domain: numeric

Parcel Area Quantity

Parcel Area Quantity is a numerical value for the two dimensional extent of the Parcel.

Domain: numeric

Parcel Area Unit

The Parcel Area Unit is the unit of measure for the two dimensional surface being quantified.

Domain: Acres, Hectares, Square Feet, Square Meters, Square Yards, free text

Parcel Area Type

The Area Type describes the type of two dimensional surface being quantified.

Domain: Computed Area, Deeded Area, Regulated Area, Surveyed Area, Taxable Area, Non-Taxable Area, free text

PARCEL LEGAL AREA

The Parcel Legal Area is the intersecting of the Legal Area Description and Parcel, and it describes the extent of the Parcel as a whole unit as opposed to a series of Record Boundaries or Corner Points.

ATTRIBUTES:

Legal Area Description ID

The Legal Area Description ID is a foreign key which points to a record in the Legal Area Description, where information on the Legal Area Description can be found.

Domain: numeric

Parcel ID

The Parcel ID is a foreign key which points to a record in the Parcel entity, where information on the Parcel can be found.

Domain: numeric

Parcel Legal Area Status

The Parcel Legal Area Status describes the reason for multiple Legal Area Descriptions for a Parcel.

Domain: Updated, Exception, Correction, Replaced, Congruent, free text

PARCEL RECORD BOUNDARY

The Parcel Record Boundary is the intersection of the Parcel and the Record Boundary entities. It describes the extent of a parcel in terms of each boundary segment.

ATTRIBUTES:

Parcel ID

The Parcel ID is a foreign key which points to a record in the Parcel entity, where information on the Parcel can be found.

Domain: numeric

Record Boundary ID

The Record Boundary ID is a foreign key which points to a record in the Record Boundary entity, where information on the Record Boundary can be found.

Domain: numeric

Parcel Record Boundary Status

As one Parcel may be matched to or described by many Record Boundaries, the Parcel Boundary Status describes the relationships of the Record Boundary to the Parcel.

Domain: Updated, Exception, Correction, Replaced, Congruent, free text

PARCEL TRANSACTION

The Parcel Transaction is an intersecting entity that describes the relationships between a parcel and an instrument of transaction. One transaction can involve many parcels and one parcel can be involved in many transactions.

ATTRIBUTES:

Transaction ID

The Transaction ID is a foreign key which points to a record in the Transaction entity, where information on the Transaction can be found.

Domain: numeric

Parcel ID

The Parcel ID is a foreign key which points to a record in the Parcel entity, where information on the Parcel can be found.

Domain: numeric

Indispute

A text field indicating whether a Parcel in a Transaction is contested or in question by virtue of being in court.

Domain: Yes, No

PUBLIC AGENCY

A Public Agency is a public sector organization defined by and part of a governmental body or one chartered by government body for a public purpose, such as the U.S. Postal Service or the Tennessee Valley Authority. The finest or smallest division included in the attributes also indicates the level of government which defines or regulates the Agency.

ATTRIBUTES:

Agent ID

The Agent ID is a foreign key which points to a record in the Agent entity, where information on the Agent can be found.

Domain: numeric

Nation

The international body or organization of the Public Agency such as United States, Canada, or Native American Tribe. The domain for Nation follows Federal Information Processing Standards Publication 10-3.

Domain: Federal Information Processing Standards Publication 10-3

State

State is one of the primary divisions of the United States and follows the abbreviation and format coding of Federal Information Processing Standards Publication 5-2.

Domain: Federal Information Processing Standards Publication 5-2

County

A County is the first division of a State. The definition and coding of this attribute is the Federal Information Processing Standards Publication 6-4.

Domain: Federal Information Processing Standards Publication 6-4

City/Village/Town

A City/Village/Town is a division of a County. The definition and coding of this attribute is the Federal Information Processing Standards Publication 55-2, September 15, 1973.

Domain: Federal Information Processing Standards Publication 55-2

Public Agency Name

The Public Agency Name is the full name of a Public Agency.

Domain: free text

PUBLIC LAND SURVEY SYSTEM DESCRIPTION

Public Land Survey System Descriptions are descriptions for areas of land that follow the pattern of Townships and Ranges established by the federal government in 1785 and its successors. For more information see Explanatory Note 2 at the end of this section.

ATTRIBUTES:

PLSS Description ID

The PLSS Description ID is a primary key which identifies each record in the Public Land Survey Description entity.

Domain: numeric

Legal Area Description ID

The Legal Area Description ID is a foreign key which points to a record in the Legal Area Description, where information on the Legal Area Description can be found.

Domain: numeric

Origin of Public Land Survey System

The Origin of Public Land Survey System is a reference for the numbering of townships and ranges within a public land survey area.

Domain: Base Line of the U.S. Military Survey, Black Hills Meridian, Boise Meridian, Chickasaw Meridian, Choctaw Meridian, Cimarron Meridian, Copper River Meridian, Extended Fourth Principal Meridian, Fairbanks Meridian, Fifth Principal Meridian, First Principal Meridian, Fourth Principal Meridian, Gila and Salt River Meridian, Great Miami River, Humboldt Meridian, Huntsville Meridian, Indian Meridian, Kateel River Meridian, Louisiana Meridian, New Mexico Principal Meridian, Michigan Meridian, Mount Diablo Meridian, Muskingum River, Navajo Meridian, Ohio River, Principal Meridian, Ohio Company Purchase, St. Helena Meridian, St. Stephens Meridian, Salt Lake Meridian, San Bernardino Meridian, Second Principal Meridian, Seward Meridian, Scioto River, Sixth Principal Meridian, Tallahassee Meridian, Third Principal Meridian, Twelve Mile Square Reserve, Uintah Meridian, Umat Meridian, Ute Meridian, Washington Meridian, Willamette Meridian, Wind River Meridian, Unspecified, Not Applicable

Survey Name

Public Land survey areas in Ohio are identified by a name. The named areas have an origin of Public Land Survey System value and then are further identified by Survey Name.

Domain: Michigan Survey, Ohio River Survey, Muskingum River Survey, Ohio River Survey, Scioto River Base, Between the Miamis, North of Symmes Purchase, Symmes Purchase, Twelve Mile Square Reserve, West of the Great Miami, United States Military Survey, Connecticut Western Reserve, Virginia Military Survey, Virginia Military District, Ohio Company Purchase, Donation Tract, French Grants, Not Applicable, Unspecified, free text

Secondary Survey Name

Secondary Survey Name further identifies named areas within the Ohio surveys.

Domain: Old Seven Ranges, Congress Lands North of Old Seven Ranges, Congress Lands East of Scioto River, Refugee Lands, Unspecified, Not Applicable, free text

PUBLIC LAND SURVEY SYSTEM TOWNSHIP

In the Public Land Survey System a Township refers to a unit of land, that are nominally six miles on a side, usually containing 36 sections.

BUSINESS RULE:

1. Public Land Survey System Townships will have a Public Land Survey System Origin and a State.

ATTRIBUTES:

PLSS Township ID

The PLSS Township ID is a primary key which identifies each record in the Public Land Survey System Township entity.

Domain: numeric

PLSS Description ID

The PLSS Description ID is a foreign key which points to a record in the Public Land Survey System Description entity, where information on the Public Land Survey System Description can be found.

Domain: numeric

Township Number

The Township Number indicates the number of rows of townships, north or south from a Public Land Survey System Origin.

Domain: numeric

Township Direction

The direction of a row of Townships from a Public Land Survey System Origin.

Domain: North, South

Township Fraction

Township Fractions are created when there are gaps between surveyed Township boundaries or due to excess size in Townships that arose from executing original surveys.

Domain: 1/4 Township, ? Township, 3/4 Township

Range Number

The Range Number indicates the number of columns of townships, east or west from a Public Land Survey System Origin.

Domain: numeric

Range Direction

The direction of a column of townships from a Public Land Survey System Origin.

Domain: East, West

Range Fraction

Range Fractions are created when there are gaps between surveyed Township boundaries or due to excess size in Townships that arose from executing original surveys.

Domain: 1/4 Range, ? Range, 3/4 Range

Township Duplicate Status

If there are multiple townships in a Public Land Survey System Origin, State and Survey Name, the Township Duplicate Status is used to establish uniqueness. When more than one Public Land Survey System Township has the same Township and Range numbers and directions and fractions, and are in the same State, this attribute is used to distinguish among duplicate values.

Domain: first duplicate - This value is applied to the duplicate Public Land Survey System Township which is closest to the base line of the Public Land Survey System Origin. If both Public Land Survey System Townships are equidistance from the base line, than the one closest to the Meridian of the Public Land Survey System Origin is assigned the value first duplicate. This was formerly known as code a or in the Ohio Symmes Purchase as code f.

second duplicate - This is the attribute value assigned to the Public Land Survey System Township that is furthest from the Public Land Survey System origin. This was formerly known as code b.

PUBLIC LAND SURVEY SYSTEM TOWNSHIP FIRST DIVISION

Public Land Survey System Townships first divisions are normally Public Land Survey System Tracts or Public Land Survey System Sections. This entity is the primary or first subdivisions of a Public Land Survey System Township.

ATTRIBUTES:

PLSS First Division ID

The PLSS First Division ID is a primary key which identifies each record in the Public Land Survey System Township First Division entity.

Domain: numeric

PLSS Township ID

The PLSS Township ID is a foreign key which points to a record in the Public Land Survey System Township entity, where information on the Public Land Survey System Township can be found.

Domain: numeric

First Division Type

The First Division Type of a Public Land Survey System Township is the primary or first subdivision category.

Domain: Unsectionalized Area, Section, Lot, Tract, Protraction Block, PLSS Tract, Parcel, Donation Land Claim, Fractional Section, free text

First Division Designator

The First Division Designator is the letter, number, or letter number combination that identifies the First Division.

Domain: free text

First Division Suffix

The First Division Suffix is the indicator for duplicate First Divisions.

Domain: free text

PUBLIC LAND SURVEY SYSTEM TOWNSHIP SECOND DIVISION

Public Land Survey System Townships second divisions are normally Public Land Survey System Aliquot Parts or Public Land Survey System Government Lots. This entity is the second subdivision of a Public Land Survey System Township. The Second Division may extend to the quarter or quarter-quarter division of a section. Divisions below the sixteenth (quarter-quarter) are in the PLSS Third Division.

ATTRIBUTES:

PLSS Second Division ID

The PLSS Second Division ID is a primary key which identifies each record in the Public Land Survey System Township Second Division entity.

Domain: numeric

PLSS First Division ID

The PLSS First Division ID is a foreign key which points to a record in the Public Land Survey System First Division entity, where information on the Public Land Survey System First Division can be found.

Domain: numeric

Second Division Type

The Second Division Type of a Public Land Survey System Township is the second subdivision category.

Domain: Block, Lot, Other Aliquot Part, Government Lot, Protracted Lot, Section, Quarter, Sixteenth, Half Section, Half Quarter, Parcel, Lot, Tract, free text

Second Division Designator

The Second Division Designator is the letter, number, or letter number combination that identifies the Second Division.

Domain: N, S, E, W, N2, S2, E2, W2, NE, NW, SE, SW, NE, NW, SE, SW, NENE, NENW, NESE, NESW, NWNE, NWNW, NWSE, NWSW, SENE, SENW, SESE, SESW, SWNE, SWNW, SWSE, SWSW, N2NE, E2NE, W2NE, S2NE, N2NW, E2NW, W2NW, S2NW, N2SE, E2SE, W2SE, S2SE, N2SW, E2SW, W2SW, S2SW, free text

Second Division Suffix

The Second Division Suffix is the indicator for duplicate Second Divisions.

Domain: free text

PUBLIC LAND SURVEY SYSTEM TOWNSHIP THIRD DIVISION

Public Land Survey System Townships third divisions are typically divisions below the quarter-quarter section aliquot part. This entity is the tertiary subdivision of a Public Land Survey System Township and is the level below the sixteenth part.

PLSS Second Division ID

The PLSS Second Division ID is a foreign key, which points to a record in the Public Land Survey System Second Division entity, where information on the Public Land Survey System Second Division can be found.

Domain: numeric

Third Division Type

The Third Division Type of a Public Land Survey System Township is the tertiary subdivision category.

Domain: Lot, Fractional Part, Parcel, Aliquot Part, free text

Third Division Designator

The Third Division Designator is the letter, number, or letter number combination that identifies the Third Division.

Domain: free text

Third Division Suffix

The Third Division Suffix is the indicator for duplicate Third Divisions.

Domain: free text

RECORD BOUNDARY

A Record Boundary is the linear feature that represents the edge of an areal feature, which may be a Parcel or a legal area.

ATTRIBUTES:

Record Boundary ID

The Record Boundary ID is a primary key which identifies each record in the Record Boundary entity.

Domain: numeric

Record Bounds

Record Bounds describe a boundary location through a call to another legal location, a call to a related document, or a call to a commonly or locally known location, such as Hogan's North Line or Good Value Creek. The Records bounds contains the name of the line for shoreline and coastal boundaries. These Coastal Record Bounds are listed in the domain of values. The legal basis for these boundaries is shown in Informative Annex 5.

Domain: Baseline for Maritime Limits (ambulatory), Baseline for Submerged Lands Act (static), Seaward State Boundary (SSB), Revenue Sharing Boundary (Section 8(g) of OCSLA), Territorial Sea (TS), Contiguous Zone, Continental Shelf Limit, Exclusive Economic Zone, Offshore Lease Blocks, International Maritime Boundaries, National Marine Sanctuary Boundaries, National Estuarine Research Reserve System Boundaries, free text

Record Boundary Legal Status

The Record Boundary Legal Status identifies the Record Boundary's status from a legal or court perspective.

Domain: Disputed, Adjudicated, Computed, free text

Offset Left

The Offset Left is the distance to the left of and perpendicular to a defined boundary line that defines the Record Boundary.

Domain: numeric

Offset Right

The Offset Right is the distance to the right of and perpendicular to a defined boundary line that defines the Record Boundary.

Domain: numeric

Connecting Line

Connecting Line indicates if the Record Boundary is part of a Parcel or a Legal Area Description or if the Record Boundary is a line connecting the Parcel or Legal Area Description to a Corner Point.

Domain: Yes, No

Record Boundary Comment

Record Boundary Comment contains additional information about the Record Boundary that may be in public record, but does conform to listed attributes for Record Boundary.

Domain: free text

RB-Source Agent

The Source Agent is the individual or organization, which determined the record boundary values.

Domain: Text

RB-Source Index

The Source Index is the value assigned by a Source Agent to a record boundary document to file or identify the source from which the record boundary originated.

Domain: Text

RB-Source Type

Source Type describes a family of documents, files, images, or other which generally conform to the same specifications or having some common unifying characteristic. The domain for Source Type is in Appendix 4.

Domain: text, See Appendix 4

RB-Source Date

The Source Date is the date of the record boundary.

Domain: Date

Direction Type

This attribute is the "basis of bearing" or "basis of azimuth" for the direction. The basis of direction can be based on astronomic observations to the North or South, coordinate system grids, magnetic points or an assumed direction such as northerly along a road centerline

Domain: Assumed, Astronomic North, Astronomic South, Geodetic North, Geodetic South, Magnetic North, Magnetic South, Unknown, free text

Direction Unit

The Direction Unit indicates the units for a Direction.

Domain: Decimal Degrees, Degrees-Minutes-Seconds, free text

Direction Quadrant

Directions can be measured as either bearings or azimuth. Bearing is an acute angle reference to either north or south. An azimuth is referenced to either north or south and is a full circle measure in the clockwise or counterclockwise direction.

Domain: Azimuth, Northeast, Southeast, Southwest, Northwest

Distance Unit

Distance Unit defines the units of measure and reference plane upon which distance measurements are taken.

Domain: Chains, U.S. Survey Feet, International Feet, Meters, Vara, Pole, Arpent, Perch, Rod, Stick, Vara - California, Vara - Texas, Unknown, free text

Distance Type

Distance Type describes the reference surface for the distance.

Domain: Ground, Sea Level (geodetic), Grid Distance, Unknown, free text

RECORD BOUNDARY CORNER POINT

The Record Boundary Corner Point is an intersecting entity between Record Boundary and Corner Point.

ATTRIBUTES:

Record Boundary ID

The Record Boundary ID is a foreign key which points to a record in the Record Boundary entity, where information about the Record Boundary can be found.

Domain: numeric

Corner Point ID

The Corner Point ID is a foreign key which points to a record the Corner Point entity, where information on Corner Point can be found.

Domain: numeric

Record Boundary Corner Point Sequence

The Record Boundary Corner Point Sequence describes the relationship of the Corner Point to the Record Boundary.

Domain: Beginning, Ending, Intermediate, Integer Value (1-999), free text

Record Boundary Curve Corner Type

A Record Boundary may be a curve. The Record Boundary Curve Corner Type is used to identify the types of Corner Points that may be related to curves.

Domain: Curve Focus, First Point on Directrix, Second Point on Directrix, Center of Curve, Beginning of Curve, Ending of Curve, Vertex, free text

RECORD BOUNDARY REFERENCE

The Record Boundary Reference entity describes the angle between the Record Boundary and the Record Boundary Direction, based on another line or reference.

ATTRIBUTES:

Record Boundary ID

The Record Boundary ID is a foreign key which points to a record in the Record Boundary entity, where information about the Record Boundary can be found.

Domain: numeric

Related Record Boundary ID

The Related Record Boundary ID is a foreign key which points to a record in the Record Boundary entity where information on the Related Record Boundary can be found.

Domain: numeric

Reference Direction

The Reference Direction is the basis of the angle or direction in the Angle attribute. For example, an angle may be turned from magnetic north or from a celestial observation.

Domain: free text

Angle

An Angle is the difference in direction between two convergent lines (American Congress on Surveying and Mapping, 1978, page 7).

Domain: numeric

RESTRICTION

Restriction captures information related to administrative, judicial, or other limitations or permissions for the use and enjoyment of land by the land right holder. These are not transferred rights, although succeeding owners may agree to the same restriction on a Parcel.

Parcel ID

The Parcel ID is a foreign key, which points to a record in the Parcel entity, where information on the Parcel can be found.

Domain: numeric

Restriction Type

The Restriction Type indicates the category, source, or location of the Restriction.

Domain: free text

Restriction Description

The Regulation Restriction Description describes the Restriction on the Parcel.

Domain: free text

R-Source Agent

The Source Agent is the individual or organization, which defines or enforces the Restriction.

Domain: Text

R-Source Index

The Source Index is the value assigned by a Source Agent to a restriction to file or identify the mandate or additional information about the Restriction.

Domain: Text

R-Source Type

Source Type describes a family of documents, files, images, or other which generally conform to the same specifications or having some common unifying characteristic. The domain for Source Type is in Appendix 4.

Domain: Text, see Appendix 4

R-Source Date

The Source Date is the date of the Restriction.

Domain: Date

STRAIGHT LINE

A Straight Line is a line connecting two points with no curves or changes in bearing or direction.

ATTRIBUTES:

Record Boundary ID

The Record Boundary ID is a foreign key which points to a record in the Record Boundary entity, where information about the Record Boundary can be found.

Domain: numeric

Direction Value

The Direction Value is the quantity of a direction of a boundary. Direction is the angle between a line and an arbitrary chosen reference line. When the reference line is north or south and the angle is designated east or west, the direction is called the bearing. When the reference line is north or south and the angle is measured clockwise, the direction is called azimuth.

Domain: numeric

Distance Value

Distance Value is the quantity for the distance of a boundary. Distance is the linear measure along a line.

Domain: numeric

SURVEY SYSTEM DESCRIPTION

A Survey System Description is a named or numbered area of land that can be identified by a type and a designator.

ATTRIBUTES:

Survey System Description ID

The Survey System Description ID is a primary key which identifies each record in the Survey System Description entity.

Domain: numeric

Legal Area Description ID

The Legal Area Description ID is a foreign key which points to a record in the Legal Area Description, where information on the Legal Area Description can be found.

Domain: numeric

Survey System Origin

The Survey System Origin is the numbering or measurement starting point or baseline for a Survey System Description.

Domain: free text

Survey System Type

Survey System Type indicates the category or major class of the description. The informative appendix for the Survey System Type is in Appendix 3.

Domain: Assessor Plat, Cemetery, Condominium, Farm Lot, French Long Lot, Grant of Land, Homestead Entry, Indian Allotment, Land Grant, Mineral Survey, Plat of Survey, Protraction Block, Small Holding Claim, Small Tracts Act, Subdivision, Survey, Texas Land Grant, Townsite, United States Survey, free text

Survey System Designator

The Survey System Designator is an identifying name or number for a specific type of Survey System area.

Domain: free text

SURVEY SYSTEM FIRST DIVISION

The First Division is the primary division of the Survey System.

Survey System First Division ID

The Survey System First Division ID is a primary key which identifies each record in the Survey System First Division entity.

Domain: numeric

Survey System Description ID

The Survey System Description ID is a foreign key which points to a record in the Survey System Description, where information on the Survey System Description can be found.

Domain: numeric

First Division Type

The First Division Type describes the classification of the First Survey System Division.

Domain: Block, Lot, Tract, Right of Way, Unit, Fractional Part, Claim, Parcel, Plot, Survey, free text

First Division Designator

The Survey System First Division Designator is an alpha, numeric, or alpha-numeric designator used to identify the First Division of the Survey System.

Domain: free text

SURVEY SYSTEM SECOND DIVISION

The Second Survey Division is the subdivision of the First Division.

Survey System Second Division ID

The Survey System Second Division ID is a primary key which identifies each record in the Survey System Second Division entity.

Domain: numeric

Survey System First Division ID

The Survey System First Division ID is a foreign key which points to a record in the Survey System First Division, where information on the Survey System First Division can be found.

Domain: numeric

Second Division Type

The Second Division Type describes the classification of the Survey System Second Division.

Domain: Fractional Part, Outlot, Lot, Tract, Parcel, free text

Second Division Designator

The Survey System Second Division Designator is an alpha, numeric, or alpha-numeric designator used to identify the Second Division of the Survey System.

Domain: free text

SURVEY SYSTEM THIRD DIVISION

The Third Division is the subdivision of the Second Division.

Survey System Second Division ID

The Survey System Second Division ID is a foreign key which points to a record in the Survey System Second Division, where information on the Survey System Second Division can be found.

Domain: numeric

Third Division Type

The Third Division Type describes classification of the third division.

Domain: Fractional Part, Lot, Tract, Parcel, free text

Third Division Designator

The Survey System Third Division Designator is an alpha, numeric, or alpha-numeric designator used to identify the Third Division of the Survey System.

Domain: free text

PARCEL TRANSACTION

The Transaction is the transfer of rights in land. Transactions are often documented in instruments, but it is not a requirement in the most part of the United States that transactions be written. Both parties in the transfer of rights must be legal parties who are capable of both delivering and receiving the rights being passed.

ATTRIBUTES:

Transaction ID

The Transaction ID is a primary key which identifies each record in the Transaction entity.

Domain: numeric

Effective Date

The Effective Date is the date the Parcel Transaction becomes effective such as the date of approval or the date of recording.

Domain: date

Expiration Date

This is the date the Parcel Transaction expires.

Domain: Date

Ownership Type

The Ownership Type describes the characteristics by which the rights are held. Appendix 2 contains the informative appendix for the domain for Ownership Type.

Domain: Fee Simple Ownership, General Tenancy, Joint Tenancy, Life Estate, Tenancy in Common, Tenancy by the Entirety, Tenancy in Partnership, Tenancy from Period to Period, Tenant at Will, Timeshare Ownership, Owner after Life Estate, Undivided Interest, With Remainder, free text

Term and Condition

Term and Condition contains the descriptions of any limitations or attachments to a Parcel Transaction such as a restrictive covenant or other limitation or stipulation.

Domain: free text

T-Source Agent

The Source Agent is the individual or organization which maintains the source information for the transaction. For example, if a source is a record filed in a county, the source agent is the county department where the source is kept or where it is possible to gain access to the source.

Domain: Text

T-Source Index

The Source Index is the value assigned by a Source Agent to the transaction document to file or identify the transaction. Some examples are volume-page indices, document number, and survey group number. One transaction may have more than one index value, but the value in this attribute is the value that will most likely direct the interested party to the transaction.

Domain: Text

T-Source Type

Source Type describes a family of documents, files, images, or other which generally conform to the same specifications or having some common unifying characteristic. The domain for Source Type is in Appendix 4.

Domain: Text, see Appendix 4

T-Source Date

The Source Date is the date on the document. This is the date the document of the document itself and may or may not be the same as the recorded date.

Domain: Date

Recorded Date

The Recorded Date is the calendar date shown on the document at the time of recording or the filing date for documents that are filed. This is primarily important for states with race-notice or race requirements for land title document recording.

Domain: date

Recorded Time

The Recorded Time is the clock time interval shown on the document. This is primarily important for states with race-notice or race requirements for land title document recording.

Domain: Time

TRANSACTION AGENT

The Transaction Agent is any participant or party identified in a land record.

ATTRIBUTES:

Agent ID

The Agent ID is a foreign key, which points to a record in the Agent entity, where information on the Agent can be found.

Domain: numeric

Transaction ID

The Transaction ID is a foreign key, which points to a record the Transaction entity where information on the Transaction can be found.

Domain: numeric

Ownership Percentage

The Ownership Percentage expresses the proportion of the Transferred Rights that are attached to the listed Agent.

Domain: numeric

Role

The Role is the capacity or function of the Agent in the Parcel Transaction.

Domain: Grantor, Grantee, Leaser, Lessee, Trustee, Mortgager, Mortgagee, Owner of Record, Recipient, Lender, Lendee, free text

TRANSFERRED RIGHT

A Transferred Right is a benefit or enjoyment in real property that can be conveyed, passed, or otherwise allocated to another for economic remuneration.

ATTRIBUTES:

Transaction ID

The Transaction ID is a foreign key which points to a record the Transaction entity, where information on the Transaction can be found.

Domain: numeric

Right Estate

The Right Estate indicates whether the right is for a subsurface, surface, or above surface estate.

Domain: Subsurface, Surface, Above Surface, free text

Right Description

A text description of the Right or Rights being transferred or conveyed.

Domain: free text

Reservation

A Reservation is a description of the right or rights that are not being conveyed or are being held in reserve by the grantor.

Domain: free text

3.3 Bibliography and References

American Congress on Surveying and Mapping, 1978, Definitions of Surveying and Associated Terms, Bethesda, Maryland, 210 pages.

Black, H.C., 1979, Black's Law Dictionary, Fifth Edition, West Publishing Company, St. Paul, Minnesota, 1511 pages.

Brinker, R.C., and Minnick, R., 1987, The Surveying Handbook, Van Nostrand Reinhold Company, New York, New York, 1270 pages.

Bureau of Land Management Advanced Cadastral Survey, 1986, Special Survey Section - Presented by Steven Johnson, Forest Service Cadastral Surveyor.

Bureau of Land Management, 1973, Manual of Surveying Instructions, Department of Interior, U.S. Government Printing Office, Washington D.C., 333 pages.

Bureau of Land Management, 1980, Glossary of Bureau of Land Management Surveying and Mapping Terms, Department of Interior, U.S. Government Printing Office, Washington D.C. 109 pages.

Bureau of Land Management, 1991, Methods and Procedures, Volume 1, Denver Service Center, Version 2.1, June, pages 1-27. Contact Denver Office of GCDB 303-236-0188 for more information.

Cazier, L., 1979, Surveys and Surveyors of the Public Domain, Bureau of Land Management, U.S. Government Printing Office, Washington D.C., 228 pages.

Digest of Public Land Laws, June, 1968.

Federal Geographic Data Committee, (1994), Content Standards for Digital Geospatial Metadata, Reston, Virginia.

Federal Geographic Data Committee, Technical Advisory Group, 1993-94, Meeting Discussions.

Federal Information Processing Standards Publication, 1987, Codes for the Identification of the States, the District of Columbia and the Outlying Areas of the United States and Associated Areas, FIPSPUB 5-2, May 28, U.S. Department of Commerce, Technology Administration, National Institute of Standards and Technology, U.S. Government Printing Office, Washington D.C., 5 pages.

Federal Information Processing Standards Publication, 1990, Counties And Equivalent Entities Of the United States, Its Predecessors, and Associated Areas, FIPSPUB 6-4, August 31, U.S. Department of Commerce, Technology Administration, National Institute of Standards and Technology, U.S. Government Printing Office, Washington D.C., 39 pages.

Federal Information Processing Standards Publication, 1986, Representation of Geographic Point Locations for Information Interchange, FIPSPUB 70-1, November 14, U.S. Department of Commerce, Technology Administration, National Institute of Standards and Technology, U.S. Government Printing Office, Washington D.C., 17 pages.

Federal Information Processing Standards Publication, 1994, Guideline: Codes For Named Populated Places, Primary County Divisions, And Other Locational Entities Of The United States And Outlying Areas, FIPSPUB 55-DC3, November 14, U.S. Department of Commerce, Technology Administration, National Institute of Standards and Technology, U.S. Government Printing Office, Washington D.C.

Federal Information Processing Standards Publication, 1993, Code For The Identification of Federal and Federally Assisted Organizations, FIPSPUB 95-1, January 4, U.S. Department of Commerce, Technology Administration, National Institute of Standards and Technology, U.S. Government Printing Office, Washington D.C.

Federal Information Processing Standards Publication, 1994, Spatial Data Transfer Standards, FIPSPUB 173-1, June 10, U.S. Department of Commerce, Technology Administration, National Institute of Standards and Technology, U.S. Government Printing Office, Washington D.C., 49 pages.

Gibson and Meyer, 1980, Route Surveying, Harper and Row Publishers, Philadelphia, PA, 548 pages.

National Park Service, 1977, Index of Affiliated Areas, June 30.

Public Law 90-542; 16 USC 1271 et seq.

Snyder, J., (1987), Map Projections - A Working Manual, USGS Professional Paper 1395, U.S. Government Printing Office, Washington D.C., 383 pages.

TIGER Line Census Files, 1992, Technical Documentation, page 4-2 and 1-24.

United States Bureau of Land Management Data Element Dictionary Report 2002, Land Records ALMRS: LLD, STATUS, CASE; Data Element 2683.

Wattles, G.H., 1979, Writing Legal Descriptions, Gurdon H Wattles Publications, P.O. Box 5702, Orange, CA 92667, pages 4.2-4.40.

Webster's II New Riverside University Dictionary, 1984.

White, C.A., 1988, A History of the Public Land Surveying System, U.S. Government Printing Office, Washington D.C., 774 pages.

3.4 Explanatory Notes

Explanatory Note 1: Outer Continental Shelf Official Protraction Diagrams

The Official Protraction Diagram Designator is based on the United Nations International Map of the World alpha-numeric numbering system. This world-wide system consists of main divisions subdivided into minor divisions. Each minor division is an Official Protraction Diagram.

A main division is four degrees of latitude by six degrees of longitude. Main divisions are identified by a two letter designation, followed by a Universal Transfer Mercator Zone Number. The first letter indicates north or south of the Equator and the second letter indicates the distance from the equator.

The main division contains twelve minor divisions of one degree of latitude by two degrees of longitude south of the 48 degree latitude. The numbers 1 through 12 are the minor division identifiers and they must always be associated with a major division identifier such as NH18-12.

North of the 48th Latitude a main division contains eight minor divisions of one degree of latitude by three degrees of longitude. The numbers 1 through 8 are the minor division identifiers and they must always be associated with a major division identifier such as NR5-3.

Explanatory Note 2: Public Land Survey System

Public Land Survey System Descriptions were originally begun in 1785 on public domain lands and the rules for its use were defined by the authority of the U.S. Government. Public Land Survey System Descriptions have since been extended, following similar rules, into non-public domain areas. Both the original government defined rectangular division of land and the subsequent extensions into non-public domain areas are included in Public Land Survey System Legal Area Descriptions.

The Public Land Survey System Origins and Survey Names are modeled here to reflect the survey systems as they exist in the records and on the ground. This modeling does not interfere with the Bureau of Land Management's PLSS Origin modeling.

4. Introduction

This document contains a listing of attribute domain of values for federal applications that are using the Federal Geographic Data Committee Subcommittee on Cadastral Data - Cadastral Data Content Standard for the National Spatial Data Infrastructure.

The following attributes are included in this list of domain of values.

Parcel Type

Parcel Type describes the function, purpose, resource or collective purpose for a parcel. The Parcel Type applies to the entire parcel.

Parcel Area Type

The Parcel Area Type describes the type of two dimensional surface being quantified.

Restriction Type

The Restriction Type indicates the category, source, or location of the Restriction.

4.1 Parcel Type

The source for each Parcel Type definition is referenced by a number in superscript at the end of the definition. The agency that supplied the reference or the legal code for the definition is listed at the end of the definitions.

If the beginning of a Parcel Type starts with national, state or county, that word has been placed to the right of the parcel type name.

<u>Domain</u>	<u>Description</u>
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ADMINISTRATIVE SITE	- A reservation of public lands to support administrative programs such as maintenance facilities, public buildings, ranger stations, technical centers or other facilities. ¹
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AGRICULTURAL AREA	- An area for practicing the science, art and business of cultivating the soil, producing crops and raising livestock on lands so designated. ¹
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AIR FORCE BASE	
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AIR FORCE STATION	
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AIR NATIONAL GUARD STATION	
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AIRPORT	- A cleared and level area where aircraft can take off and land. Air navigation site a site used to record, plan and control the position of an aircraft. ¹
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AIRSPACE RESERVE	- The section of the atmosphere above a particular land area that is set aside for special use. ¹
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ALASKA NATIVE ALLOTMENT	- An allocation of land to a native of which he had made substantially continuous use and occupancy for a period of 5 years. ⁹
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ALASKA NATIVE VILLAGE STATISTICAL AREA	- 1990 census statistical areas that delineate the settled area of each Alaska Native Village, which consist of tribes, bands, clans, villages, communities, and associations that are recognized in pursuant to the Alaska Native Claims Settlement Act (pl 92-203), but do not have legally recognized boundaries. ⁷
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ANADROMOUS SPAWNING AREA - An area where fish ascending rivers from the sea go to spawn.⁹

ARCHEOLOGICAL AREA - An area known to have fossil relics, artifacts or monuments of past human life and activities.⁹

AREA OF CRITICAL ENVIRONMENTAL CONCERN - Land used as a buffer area to protect wilderness and other fragile areas to limit the types of uses within an area of critical environmental concern.¹

ARMY AMMUNITION PLANT

ARMY ARSENAL

ARMY DEPOT

ARMY LABORATORY

ARMY MEDICAL CENTER

ARMY NATIONAL GUARD

ARMY PRESIDIO

AUTO RACING & TESTING - Land set aside for auto testing and racing.¹

AVIATION NAVIGATIONAL AID - Airport approach lighting system or rotating beacons where the airport itself is not located on National Forest system land. Also where a navigation route marker consists of a visual, non-electronic device.⁹

BACK COUNTRY BYWAY, NATIONAL - A back country byway is a component of the National Scenic Byway system which focuses primarily on scenic corridors along back country roads. The range of road types may vary from a single track bike trail to a narrow, low speed, paved road that traverses back country areas of high scenic and public interest value.¹

BATTLEFIELD PARK, NATIONAL - Land set aside to preserve places and commemorate persons, events and activities important in the Nation's Military history.²

BATTLEFIELD SITE, NATIONAL - Land set aside to preserve places and commemorate persons, events and activities important in the Nation's Military history. ²

BATTLEFIELD, NATIONAL - Land set aside to preserve places and commemorate persons, events and activities important in the Nation's Military history. ²

BOATING SITE - Land used to store or dock boats. ¹

BOMB/TARGET/GUNNERY RANGE - Land set aside for aerial, anti-aircraft, archery and rifle ranges, combat and training areas. ¹

BOTANICAL AREA - Land set aside to study science of Plants. ¹

BUILDING - A structure built to shelter people, animals or goods. ⁹

CAMPSITE - An area suitable or used for recreation composed of more or less permanent shelters. ³

CANAL - An artificial waterway for navigation or for draining or irrigating land. ⁹

CCC CAMP - Land set aside for public works performed by the civilian conservation corps. ¹

CEMETERY - A place used for burying the dead. ³

CEMETERY, COUNTY - A place used for burying the dead managed by a county. ³

CEMETERY, NATIONAL - A place used for burying the dead managed by the federal government. ³

CEMETERY, STATE - A place used for burying the dead managed by a state government. ³

CIVIL WORKS PROJECT - An area set aside and managed by the Corps of Engineers to provide for flood control, irrigation, navigation, recreation, water quality and water supply. ¹

CLASS-AID LEGISLATION - A designation of public lands as being suitable for transfer/use under provisions of a public land law not yet passed by Congress. ¹

CLASS-MILITARY - A designation of public lands as being suitable for military purposes. ¹

CLASS-NATIVE RESERVE - A designation of public lands as being suitable to be set aside for Native Americans. ¹

COAL RESERVE - Land set aside as it is valuable for coal deposits. ¹

COMM URBAN-SUBURB, POTENT - Land that has the potential for growth as a city. ¹

COMMUNITY URBAN-SUBURBAN - Land that has the characteristics of a city. ¹

COMMUNICATION SITE - Land set aside for the electronic exchange of ideas, messages, information. ¹

CONSERVATION AREA - Land set aside for the controlled use and systematic protection of natural resources. ³

CONSERVATION AREA, NATIONAL - Land given a special designation for the specific purpose outlined in the establishing act of congress. Ex: Sec 401, PL 96-487 (ANILCA). ¹

CONSERVATION EASEMENT - A right on another persons land to care for and preserve natural resources. ⁹

COOPERATIVE MANAGEMENT AREA - An area of land that is managed by more than one agency, federal or local government. ¹

COORDINATION AREA - Any area administered as part of the National Wildlife Refuge System managed by the States under cooperative agreements between the Service and one or more State fish and wildlife agency. ¹⁰

COUNTY MAINTENANCE YARD/GARAGE - Land used for maintenance of county equipment. ¹

CULTURAL- TRADITIONAL -Identifies areas or other designations and/or withdrawals for protection and/or enhancement of traditional values. ⁴

CULTURAL- HISTORICAL - Identifies areas, national register sites or other designations and/or withdrawals for protection and/or enhancement of historical properties. ⁴

DAM SITE - Land set aside to contain a barrier built across a waterway to control the flow or raise the level of water. ³

DATA COLLECTION SITE - Land set aside to provide an area to gather information on a natural resource. ¹

DRAINAGE - Land set aside to protect the natural outflow of a river system. ³

DUNE - An area set aside to protect a ridge or hill of wind blown sand. ¹

EAGLE WILDLIFE MANAGEMENT AREA - Special interest area managed to protect eagle habitat. ⁹

EASEMENT - An area of land with a right afforded a person to make limited use of another persons real property. ¹

ECOLOGICAL PLOT - Land used to study the relationship of organisms to their environment. ³

ENVIRONMENTALLY SENSITIVE AREA - An area where the ecological integrity may need to be preserved. Mitigation measures and restrictions may be required before forest activities are allowed. ⁹

EXPERIMENTAL AREA - Forest fire research laboratory used to research problems to control, prevent, and suppress forest & range fires. ¹

EXPERIMENTAL FOREST - Land set aside to control forest growth. Fire station land set aside for manned stations, temporary or permanent, includes caches. ¹

EXPERIMENTAL RESEARCH AREA - A unit reserved and dedicated by the Secretary of Agriculture for forest or range research and experimentation. ⁹

EXPERIMENTAL STATION - A special management area set aside for experimental purposes. ¹

EXPERIMENTAL WATERSHED - Land set aside to control soil erosion, flood control, & other land utilization activities. ¹

FACILITIES, NON-ENERGY - Land used for roads, railroads, communication sites, telephone and telegraph lines, irrigation and domestic water pipelines and facilities. ¹

FACILITIES, OIL AND GAS - Land use authorized for use under the O&G leasing laws or the Trans Alaska Pipeline System Act (TAPS). ¹

FACILITIES, OTHER ENERGY - Land used for electrical transmission or distribution lines, coal slurry pipelines or railroads, geothermal facilities and pipelines, and wind power. Also includes facilities for hydro power generation, where primary purpose of the facility is the production, transmission, or transportation of energy. ¹

FEDERAL GAME REFUGE WITHDRAWAL - An area withdrawn from all mineral entry to protect game on federal refuges. ¹

FISH HATCHERY, NATIONAL - Facility where the Fish & Wildlife Service cultures warm, cool, and cold water fish species to various life stages in order to replenish depleted stocks, to mitigate Federal water projects, to assist with the management of fishery resources on Federal and Indian lands, and to enhance recreational fisheries. ¹⁰

FISHERIES RESEARCH CENTER, NATIONAL - Facility where the Fish & Wildlife Service conducts research to provide biological information on numbers, dynamics, ecological relationships, diseases, habitat requirements, and new population management methods. ¹⁰

FISHING AREA/FISHERIES - Lands valuable for fisheries, fish propagation, recreational fishing, includes fish hatcheries. ¹

FLOOD CONTROL WITHDRAWAL - An area withdrawn from all mineral entry to control flooding. ¹

FLOOD PLAIN - An extensive level treeless land region bordering a river subject to inundation. ³

FLOWAGE EASEMENT - Not an easement by agreement, but the common law servitude of land of a lower grade level to allow water from land of a higher grade level to flow across it. ⁹

FLUME - Mountain stream, torrent or artificial channel or trough for conducting water used to move logs, fish, etc. ¹

FMHA CONSERVATION EASEMENT - Interest in lands acquired in fee and less than fee by the Farmers Home Administration (FmHA) pursuant to the Consolidated Farm and Rural Development Act (7 U.S.C. 1921 *et seq.*). The U.S. Fish and Wildlife Service currently manages these parcels as part of the National Wildlife Refuge System. ¹

FORT

FOREST, NATIONAL - A unit formally established and permanently set aside and reserved for National Forest purposes.⁹

GAGING STATION - A station used to measure the flow of a stream, or to count fish.¹

GAME PRESERVE - Land set aside to protect wild animals. Grassland land that has 20 percent or more herbaceous cover.¹

GAME REFUGE, NATIONAL - An area that provides shelter or protection to animals.⁹

GEOLOGICAL AREA - An area of land set aside for the study of the origin, history, and structure of the earth.⁹

GEOTHERMAL RESOURCES - Land set aside for protection of geothermal (relating to the earth's internal heat) resources.¹

GRASSLAND, NATIONAL - A unit designated by the Secretary of Agriculture and permanently held by the Department of Agriculture under Title III of the Bankhead-Jones Farm Tenant Act.⁹

HAZARDOUS WASTE SITES - Land set aside to store dangerous, useless by-products such as toxic, nuclear, low and high level radioactive waste, insecticide or pesticide material.¹

HISTORIC PRESERVE, NATIONAL - An area named for the Timucuan Indians who once lived there and who may have been there for as long as 2000 years. The area also contains remains of Spanish, French and English colonial ventures, as well as Southern plantation life and 19th century military activities.²

HISTORIC SITE - Land set aside to preserve a past event.¹

HISTORIC SITE, INTERNATIONAL - Land set aside to preserve one site relevant to both United States and Canadian history.²

HISTORIC SITE, NATIONAL - Land set aside to preserve places and commemorate persons, events and activities important in the nation's history; of less extent and complexity than national historic parks.²

HISTORIC TRAIL, NATIONAL - Trails designated for national historic purposes by act of congress under the authority of the National Trails System Act of 1968 as amended (82 Stat 919). These trails recognize past routes of exploration, migration and military action. ²

HISTORICAL AREA - A unit of land possessing a significant site or a concentration of sites, buildings, structures, or objects united historically or prehistorically by plan or physical development. ⁹

HISTORICAL PARK, NATIONAL - Land set aside to preserve places and commemorate persons, events and activities important in the nation's history; of greater physical extent and complexity than national historic sites. ²

HORSE PASTURE - Land used to pasture horses. ¹

HOSPITAL SITE - Land used for institutions that provide medical/surgical care for the treatment of sick or injured people. ³

HOT SPRING - Land set aside as there is a natural spring discharging water above 98 degrees fahrenheit. ³

INDIAN PURPOSES - Land set aside for any specific Indian use, such as schools, churches, preservation of drinking water, etc. ¹

INDIAN RESERVATION, NATIONAL - Legal entities having boundaries established by treaty, statute, and/or executive or court order and are identified by the Bureau of Indian Affairs for federal reservations, includes pueblos and rancheros. ⁷

INDIAN RESERVATION, STATE - Legal entities having boundaries established by treaty, statute, and/or executive or court order and are identified by the individual state for state reservations. ⁷

INDIAN TRUST LANDS - Off-reservation lands associated with a specific tribe or reservation held in trust by the federal government. Identified by the Bureau of Indian Affairs and state governments. Trust lands may be either tribal or individual. ⁷

LAKESHORE, NATIONAL - Land set aside to preserve shoreline areas and offshore islands where the focus is on the preservation of natural values while at the same time providing water-oriented recreation. ²

LAND USE DESIGNATION II MANAGEMENT AREA - 12 areas designated in perpetuity by the Tongass Timber Reform Act to manage the areas in a roadless state to retain their wildland character. ⁹

LAND UTILIZATION PROJECT - An area set aside by the Secretary of Agriculture under authority of the Bankhead-Jones Farm Tenant Act in which the Forest Service has the authority to purchase lands for grasslands purposes. ¹

LIGHTHOUSE SITE - A site used for a tall structure topped by a powerful light used as a signal or beacon to aid marine navigation. ³

LONG TERM VISITOR AREA - An area where a special use recreation permit is required; stays may be for longer than 14 days. ¹

MANAGEMENT INTEREST AREA - An area the forest service manages or intends to manage that is not defined by ownership, use restriction, special geographic boundary, or areas assigned a fiscal identifier by fiscal & accounting services, Washington Office (NFFID areas); for example: Land Management Planning Areas. ¹

MARINE CORPS AIR STATION

MARINE CORPS BASE

MARINE CORPS CAMP

MARINE CORPS LOGISTICS BASE

MARINE CORPS RECRUIT DEPOT

MARINE SANCTUARY, NATIONAL - An area of marine environment which possesses conservation, recreational, ecological, historical, research, educational, or aesthetic qualities of special national significance. Marine environment means those areas of coastal and ocean waters, the Great Lakes and their connecting waters, and submerged lands over which the United States exercises jurisdiction, consistent with international law. ¹¹

MEMORIAL AREA - A place designed or established to preserve the memory of a person or event. ³

MEMORIAL, NATIONAL - Land set aside to preserve places and commemorate persons, events and activities important in the nation's history; most often used for areas that are primarily commemorative, but need not be sites or structures historically associated with their subject. ex: the home of Abraham Lincoln in Springfield, Ill is a National Historic Site, but the Lincoln Memorial in Washington D.C. is a National Memorial. ²

MIGRATORY WATERFOWL REFUGE - Federal land managed by the Fish & Wildlife Service as part of the National Wildlife Refuge System to mitigate a Federal water resource project for the benefit of migrating waterfowl (and other wildlife) under the Fish and Wildlife Coordination Act of 1954, as amended. ¹⁰

MILITARY HOSPITAL - An institution that provides medical or surgical care and treatment for the sick and injured of any current or retired member of the armed forces or coast guard. ¹

MILITARY INSTALLATION - Base, yard, or depot used by any of the armed forces or the coast guard. ⁷

MILITARY PARK, NATIONAL - Land set aside to preserve places and commemorate persons, events and activities important in the nation's military history. ²

MILITARY RESERVATION - Land that is reserved for any branch of the military, includes bases. ¹

MINERAL CLASSIFICATION - The classification of lands as being valuable for a specific mineral or minerals, also the public lands so classified. ⁹

MINERAL LEASE - A lease which authorizes the development and production of leasable minerals from public lands. ⁹

MINERAL PROSPECTING AREA - An area used to search for new deposits, or preliminary explorations to test the value of lodes or placers already known to exist. ⁹

MINERAL RESERVE AREA - The quantity of mineral which is calculated to lie within given boundaries. ⁹

MINING CLAIM - A possessory interest in land obtained by physically locating certain lands on the ground under the authority of the 1872 Mining Law on which a discovery of valuable locatable minerals has been made. ⁹

MONUMENT, NATIONAL - Land set aside to protect at least one nationally significant resource, such as objects of ecological, cultural, geological, historical, prehistorical and scientific interest. National Monuments are generally smaller than National Parks. EX: SEC 503 (a-c), PL 96-487 (ANILCA). ²

MULTIPLE USE MANAGEMENT AREA - An area allowing a diverse range of forest activities, from recreation to logging, as identified by the forest management plan. ⁹

NATURAL AREA - An area set aside in an undisturbed state to preserve natural and environmental values. ⁹

NATURAL LANDMARK, NATIONAL - Lands designated and/or withdrawn as National Natural Landmarks. ¹

NAVAL AIR FACILITY

NAVAL AIR STATION
NAVAL AMPHIBIAN BASE

NAVAL COMMUNICATIONS STATION

NAVAL CONSTRUCTION BATTALION CENTER

NAVAL HOSPITAL

NAVAL POSTGRADUATE SCHOOL

NAVAL SHIPYARD

NAVAL STATION

NAVAL SUBMARINE BASE

NAVAL TRAINING CENTER

NAVAL WEAPONS STATION

NATIONAL PARK SERVICE AFFILIATED AREAS - Those properties that are neither federally owned nor directly administered by the National Park Service but which utilize National Park Service

assistance. These areas comprise a variety of locations in the United States and Canada that preserve significant properties outside the National Park System. All draw on technical or financial aid from the National Park Service.²

NATIONAL PARK SERVICE AREA WITHOUT DESIGNATION - Area administered by the National Park Service that is outside the normal classification designation, such as the White House and the National Mall.²

NURSERY SITE - A site where trees and shrubs are grown for transplanting.⁹

OBSERVATORY SITE - Land set aside to protect the telescope and scientific observations at observatory sites including solar observatories.¹

OCCUPANCY, INDUSTRIAL - Occupancy of the public land with temporary facilities or permanent structures, for industrial purposes other than occupancy related to a mining claim.¹

ORCHARD - Land used for the cultivation of fruit or nut trees.³

OUTSTANDING NATURAL AREA - Area designated and/or withdrawn as an outstanding natural area or an area for outstanding natural values.⁴

PACIFIC MISSILE TEST CENTER

PALEONTOLOGICAL AREA - Identifies areas or other designations and/or withdrawals for protection and/or enhancement of paleontological values.⁴

PARACHUTE TEST RANGE - Land/facilities used for testing parachutes.¹

PARK - Land set aside to conserve the scenery and the natural and historic objects and the wild life therein and to provide for the enjoyment of the same in such manner and by such means as will leave them unimpaired for the enjoyment of future generations.²

PARK, NATIONAL - Land set aside to conserve the scenery and the natural and historic objects and the wild life therein and to provide for the enjoyment of the same in such manner and by such means as will leave them unimpaired for the enjoyment of future generations.²

PARKWAY, NATIONAL - Encompasses ribbons of land flanking roadways and offer an opportunity for leisurely driving through areas of scenic interest.²

PETROGLYPH - An area set aside to protect ancient line drawings or carvings on rock. ¹

PIPELINE - An extended connection of pipes for transporting liquids or gases. ⁹

POST OFFICE - Post Office site land set aside for use of the Post Office. ¹

POTASH RESERVE - Land set aside as it is valuable for potash. ¹

POWER WITHDRAWAL - A reservation of public lands for use in a power project. ⁹

POWERLINE - Lines carrying electricity. ⁹

PRESERVE, NATIONAL - A National Park in which the Secretary of the Interior can designate zones where, and periods when, no hunting, fishing, trapping, or the extraction of minerals and fuels may be permitted to protect the natural values, such as public safety, administration, floral and faunal protection, or public use and enjoyment. EX: SEC 203, PL 96-487 (ANILCA). ²

PRIMITIVE AREA - Land set aside to remain in its natural state as there is no or minimal development. ³

PROJECT - A Project is a group of related works that are planned, designed, constructed, and operated as a coordinated development, regardless of location or relative importance. It may consist of only one major structure or of an entire river basin development. ¹²

PROSPECTING AREA - Land set aside for searching and exploring for valuable minerals in sufficient quantity to be mined. ¹

PROTECTIVE RESERVE - Land set aside for protection as it is valuable for a special use, such as for air space, coal, potash, American natives, game, primitive areas, observatory sites, weather observation & reporting and fisheries. ¹

PUBLIC SERVICE SITE - National Forest System Lands used for marking and preserving points of interest to the general public and for calling attention to those places by appropriate signs. ⁹

PURCHASE UNIT - A unit designated by the Secretary of Agriculture or previously approved by the National Forest Reserve Commission for purposes of Weeks Law Acquisition. ⁹

QUARRY SITE - Land containing an open pit from which stone is extracted. ³

RAILROAD - A permanent road having a line of rails fixed to ties and laid on a roadbed, providing a track for cars or equipment drawn by a locomotive. ⁹

RECLAMATION PROJECT - Land set aside for the bureau of reclamation to conduct any activity authorized by law. ¹

RECREATION AREA - Lands designated and/or withdrawn for recreation purposes. ¹

RECREATION AREA, NATIONAL - Lands and waters set aside for recreational use by acts of Congress. ²

RECREATION TRAIL, NATIONAL - Trails designated for national recreation purposes by the secretary of interior under the authority of the national trails system act of 1968, as amended (82 stat 919). ⁴

RECREATIONAL RIVER, NATIONAL - Rivers or sections of rivers that are readily accessible by road or railroad, that may have some development along their shoreline, and that may have undergone some impoundment or diversion in the past. ⁵

RESEARCH NATURAL AREA - An area that is established and maintained for the primary purpose of research and education because the land has one or more of the following characteristics: (1) a typical representation of a common plant or animal association; (2) an unusual plant or animal association; (3) a threatened or endangered plant or animal species; (4) a typical representation of common geologic soil, or water features; or (5) outstanding or unusual geologic, oil, or water features. ⁸

RESEARCH SITE - A special management area set aside for research purposes. ¹

RESERVE, NATIONAL - An area established primarily for the protection of certain resources. Similar to National Preserves, except that management is by local or state authorities. ²

RESERVOIR - Land containing a body of water collected and stored for future use in a natural or artificial lake. ³

RESURVEY - Land set aside from all other uses until a remeasurement of the boundaries is done. ¹

RIGHT OF WAY - The privilege which one person, or persons particularly described, may have of passing over the land of another in some particular line. Usually, an easement over the land of another.⁹

RIVER, NATIONAL - National rivers preserve ribbons of land bordering on free-flowing streams which have not been dammed, channelized, or otherwise altered by man to provide opportunities for outdoor activities.²

ROAD - An open travelway for vehicles or pedestrians.⁹

ROADSIDE ZONE - Land used to protect and preserve the aesthetic value of the highways through development of the natural resources, and provide for road betterment and public safety.⁹

SCENIC AND RESEARCH AREA, NATIONAL - Areas that contain outstanding scenic values for research, scientific and recreational purposes.⁹

SCENIC AREA - A unit of land with outstanding natural beauty that requires special management to preserve this beauty.⁹

SCENIC AREA, NATIONAL - Areas that contain outstanding scenic characteristics, recreational values, and geologic, ecologic, and cultural resources.⁹

SCENIC BYWAY, NATIONAL - A scenic byway has roadside or corridors of special aesthetic, cultural, or historic value. An essential part of this road is its scenic corridor. The corridor may contain outstanding scenic views, unusual geologic or other elements, all providing enjoyment for the highway.¹

SCENIC CORRIDOR - Lands designated and/or withdrawn as scenic corridors.⁴

SCENIC HIGHWAY - Three highways in Alaska designated as having special aesthetic, cultural and historic value.¹

SCENIC RIVER, NATIONAL - Rivers or sections of rivers that are free of impoundments, with shorelines or watershed still largely undeveloped, but accessible in places by roads.⁵

SCENIC TRAIL, NATIONAL - Trails designated for national scenic purposes by act of congress under the authority of the National Trails System Act of 1968 as amended (82 Stat 919). These trails are to be continuous, extended routes of outdoor recreation within protected corridors through some of the nations most striking natural beauty.²

SEASHORE, NATIONAL - Land set aside to preserve shoreline areas and offshore islands where the focus is on the preservation of natural values while at the same time providing water-oriented recreation. ²

SEWAGE DISPOSAL - A site used to dispose of sewage that is not hazardous. ¹

SPECIAL INTEREST AREA - An area that is of a nature or significance to justify or require more intensive management, protection, interpretation or use. ⁹

STATE-AGRICULTURAL AND MECHANICAL COLLEGES - Land grant for state agricultural and mechanical colleges. ⁴

STATE BOND PAYMENT, ARIZONA COUNTIES - Land grant in Arizona for payment of bonds & interest for Maricopa, Pima, Yavapai & Coconino counties & balance to common schools. ⁴

STATE-BOND PAYMENT, GRANT AND SANTE FE COUNTIES - Land grant in New Mexico for payment of bonds and interest for Grant and Santa Fe counties with balance to common schools. ⁴

STATE-CHARITABLE, PENAL AND REFORM INSTITUTIONS - Land grant for state charitable, penal and reformatory institutions. ⁴

STATE-ESTABLISHMENT PERMANENT RESERVOIR-IRRIGATION - Land grant for establishment of permanent reservoirs for irrigation. ⁴

STATE INSANE ASYLUMS - Land grant for state insane asylums. ⁴

STATE INTERNAL IMPROVEMENTS - Land grant for state internal improvements. ⁴

STATE MILITARY INSTITUTIONS - Land grant for state military institutions. ⁴

STATE MINERS HOSPITALS - Land grant for state miners hospitals. ⁴

STATE NORMAL SCHOOLS - Land grant for state normal schools. ⁴

STATE PENITENTIARIES - Land grant for state penitentiaries. ⁴

STATE PUBLIC BUILDING AND BOND PAYMENT - Land grant for state legislative, executive, and judicial buildings and for payment of bonds. ⁴

STATE SCHOOL AND ASYLUMS FOR DEAF DUMB AND BLIND - Land grant for state schools for deaf, dumb and blind. ⁴

STATE SCHOOL OF MINES - Land grant for state school of mines. ⁴

STATE SCIENTIFIC SCHOOLS - Land grant for state scientific schools. ⁴

STATE UNIVERSITY - Land grant for state university purposes. ⁴

STOCK DRIVEWAY WITHDRAWAL - An area withdrawn from all mineral entry to protect stock driveways. ¹

STORAGE AREA - An area designated to store items usually consisting of equipment and material goods. Usually includes improvements constructed on them. ⁹

STREAM GAUGE STATION - A measuring devise for stream information or data. ⁹

SURFACE USE - Permits various uses on the surface of withdrawn lands that do not affect the extent of segregation, i.e., to permit rights of way, to allow for the issuance of grazing leases, etc. ⁴

TELEPHONE, TELEGRAPH - Telephone or telegraph uses not financed through the Rural Electrification Administration. ⁹

THREATENED AND ENDANGERED - Land set aside to protect any threatened/endangered species, which is any species in danger of extinction. ¹

TIMBER - Land used to harvest timber, contain log scaling stations or sawmills. ¹

TOWNSITE RESERVE - Land set aside to establish a city. ¹

TRAIL - Land that contains a beaten track, or blazed path, includes horse, bike, hiking, jeep. ¹

TRANSFER STATION - Temporary refuse storage site pending transportation to a landfill. ¹

TRIBAL DESIGNATED STATISTICAL AREA - Geographic areas delineated for 1990 census data tabulation purposes by tribal officials of federally and state recognized tribes outside of Oklahoma that do not have a legally defined reservation or associated trust land. ⁷

TRIBAL JURISDICTION STATISTICAL AREA - Geographic areas delineated for 1990 census data tabulation purposes in Oklahoma by federally recognized tribes that do not have a legally defined reservation and generally contain American Indian population over which one or more tribal governments have jurisdiction. ⁷

VISITOR INFORMATION CENTER - An area where a visitor can get information about resources or recreational opportunities on federal land, such as wayside exhibits, information areas in offices, visitor centers. ¹

VOLCANIC MONUMENT, NATIONAL - An area designed to gain scientific information for future interpretation and enjoyment by visitors. ⁹

WATCHABLE WILDLIFE VIEWING AREA - An area identified by the Bureau of Land Management to provide enhanced opportunities for people to experience wildlife; to promote learning about wildlife and its needs; and to lead to active support of conservation. ¹

WATER RESERVE WITHDRAWAL - An area withdrawn from all mineral entry to protect water rights. ¹

WATER RIGHT OF WAY - A right of way granted to the Corps of Engineers or the Bureau of Reclamation by the Forest Service to flood an area. ¹

WATER RIGHTS - Rights of a landowner to use water from a river, lake, or creek for personal use. ⁹

WATER TRANSMISSION - A way of moving water from one place to another. ⁹

WATERFOWL PRODUCTION AREA - Any wetland or pothole area acquired pursuant to the Migratory Bird Hunting and Conservation Stamp Act and administered by the Fish & Wildlife Service as part of the National Wildlife Refuge System. ¹⁰

WATERFRONT ZONE - An area of land fronting or abutting on a body of water. ⁹

WATERSHED AREA - An area within a river basin and in which all surface water flows to a common point. ⁹

WATERSHED WITHDRAWAL - An area withdrawn from all mineral entry for hydrologic purposes, such as to protect against erosion. ¹

WEATHER OBSERVATION/REPORTING - Land set aside for weather observation & reporting. ⁴

WELL - A shaft or hole sunk into the earth to reach a supply of water or to obtain oil or gas. ⁹

WILD AND SCENIC RIVER/RIVERWAY, NATIONAL - Rivers designated as such were created by Congress (Public Law 90-542; 16 USC 1271 et seq) to preserve certain outstanding natural, cultural or recreational features in a free-flowing condition for the enjoyment of present and future generations. ⁵

WILD AND SCENIC RIVER STUDY AREA - An area to be studied using existing planning and environmental analysis procedures and to protect existing characteristics through the study period until designated or released from consideration.⁹

WILD HORSE AND BURRO HERD MANAGEMENT AREA - All or part of a herd area identified in a Resource Management Plan for the long term management of wild horses and burros.¹

WILD HORSE AND BURRO TERRITORY - National Forest land identified by the Chief as the territorial habitat of wild free-roaming horses or burros when the Wild Horses and Burros Protection Act was passed.⁹

WILD RIVER, NATIONAL - Rivers or sections of rivers that are free of impoundments and generally inaccessible except by trail, with watersheds or shorelines essentially primitive and waters unpolluted that represent vestiges of primitive America.⁵

WILDERNESS AREA - Land designated by Congress to be managed as a unit of the National Wilderness Preservation System, in accordance with the terms of the Wilderness Act of 1964.¹⁰

WILDERNESS STUDY AREA - An area of undeveloped federal land retaining its primeval character and influence, without permanent improvements of human habitation set aside to study the potential value for inclusion into the wilderness system.⁶

WILDLIFE MANAGEMENT AREA - Land set aside for conservation & rehabilitation of animals living in a natural, undomesticated state.¹

WILDLIFE REFUGE, NATIONAL - Any lands, waters, and interests therein administered by the Fish & Wildlife Service as part of the National Wildlife Refuge System for the protection and conservation of fish and wildlife including those that are threatened with extinction, with the exception of Coordination Areas.¹⁰

WILDLIFE RESEARCH CENTER, NATIONAL - Facility where the Fish & Wildlife Service conducts research to provide biological information on numbers, dynamics, ecological relationships, diseases, habitat requirements, and new population management methods.¹⁰

WINDMILL - A wind-driven structure designed to use wind to generate electric power or movement of water.⁹

ZOOLOGICAL AREA - A unit of land that contains animal specimens, animal groups, or animal communities that are significant because of their occurrence, habitat, location, life history, ecology, rarity, or other features.⁹

References for Parcel Type

1. Federal Geographic Data Committee (FGDC) Technical Advisory Group (TAG)
2. The National Park Service
3. Websters II New Riverside University Dictionary, 1984.
4. United States Bureau of Land Management Data Element Dictionary Report 2002, Land Records ALMRS: LLD, STATUS, CASE, Data Element 2683.
5. Public Law 90-542; 16 USC 1271 et seq.
6. Digest of Public Land Laws June 1968.
7. US Census
8. Code of Federal Regulations, Volume 43, Part 8223.0-5.
9. United States Forest Service
10. United States Fish & Wildlife Service
11. Title III, 16 U.S.C. 1431-1445.
12. Bureau of Reclamation

4.2 Parcel Area Type

<u>Domain</u>	<u>Description</u>
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CASE AREA - The area of a Parcel expressed in a Bureau of Land Management Case document.

COMPUTED AREA - The area of a parcel determined by combining other parcel elements such as lengths or coordinate values. The procedures for computing these areas are indigenous to the computation method.

LEGAL AREA - The area in a Parcel expressed in a legal document and used a controlling element in the evidence of the extent of the Parcel. Expressed in the units of Acres for the purposes of federal government activity.

SURFACE AREA - The area of the Parcel on the ground as opposed to an Area projected to a horizontal plane. This determines the croppable or total ground area of a Parcel as defined by the Soil Conservation Service (SCS).

SURVEYED AREA - The area of a Parcel displayed on a survey document.

TAXABLE AREA - The area of a Parcel in acres of a parcel that are subject to property taxes.

OFFICIAL AREA - The surface area of a Parcel expressed in acres for land expressed in a document. It includes land inundated by water or land between the meander lines of Government Land Office or BLM surveys the surface of which may be under another or the same jurisdiction.

Business Rules:

1. Official Acres are Determined by:
 - a. The use of acreage shown in the official BLM cadastral survey records in surveyed areas,
 - b. use of an official BLM protraction diagram in unsurveyed areas,
 - c. in unsurveyed and unprotracted areas use standard surveying and mapping procedures to compute acreage by using existent survey data surrounding the area,

d. tracts of land acquired by PLSS description use the legal acreage shown in the official cadastral records,

e. tracts of land that do not conform to GLO or BLM official records survey will use the legal area for official acreage.

UPLAND AREA - Area of a Parcel expressed in acres that are above water for the purposes of administering Native American Claims in Alaska

WATER AREA - Area of a Parcel expressed in acres that is under water or submerged for the purposes of administering Native American Claims in Alaska.

4.3 Restriction Type

Restriction captures information related to administrative, judicial, or other limitations or permissions for the use and enjoyment of land by the land right holder. These are not transferred rights, although succeeding owners may agree to the same restriction on a Parcel.

SURFACE RESTRICTION TYPE DOMAIN

CLOSED TO AGRICULTURAL LAWS - Closed to all forms of entry and settlement under the agricultural land laws.

SURFACE ESTATE CLOSED - For withdrawals closed to settlement, sale, location and/or entry or all forms of appropriation except as specified by the statute or authority under which it is withdrawn, e.g. reclamation homestead.

ALL SURFACE WITH EXCEPTION - Segregates entire surface except for one or more commodities/resources.

CLOSED - CAREY ACT - Withdrawn from entry, application or selection under the Carey Act (43 USC 641).

CLOSED-DESERT LAND ENTRY - Segregated from entry, application or selection under the desert land act (43 USC 351 ET SEQ)

CLOSED-EXCHANGE - Closed to exchanges. Specific type of exchange is not identified (e.g. State exchange).

SUBJECT TO SECTION 24 OF FPA - Subject to the provisions of Section 24 of the Federal Power Act as specified by the order.

ILLEGIBLE - Cannot read the segregation in the document because the document is unreadable and the segregation cannot be obtained from any other source.

MISSING DOCUMENT - The document is missing from the physical records and the segregation cannot be established without the document.

NOT OPEN TO ENTRY - Surface is not open to entry. Used primarily on exchanges when lands have been reconveyed & an opening order has not been published.

NONE - The document states that there is no segregation of the surface estate.

OTHER - Specific or complex segregation. Must study document.

CLOSED - PUBLIC LAND SALES - Lands are segregated from sales under the public land sale Act of 9-19-1964 (78 STAT 988;43 USC 1421-27).

CLOSED - R&PP - Lands are segregated from lease or sale under the recreation & public purposes act of 6-14-1926, as amended (44 STAT 741;43 USC 869).

CLOSED - SALES - Lands are segregated from sales under RS 2455 as amended (43 USC 1171).

CLOSED - STATE SELECTION - Withdrawn from entry, application or selection under State selection statutes.

CLOSED - SMALL TRACT - Closed to disposal under the small tract act.

CLOSED - STATE EXCHANGE - Segregates the land from State Exchange (43 USC 315G(C)).

UNKNOWN - Unable to determine segregation from the document; document missing from records; or document doesn't specify.

SUBSURFACE RESTRICTION TYPE DOMAIN

ALL MINERALS - All minerals are segregated from entry, leasing or sale.

ALL MINERALS WITH EXCEPTION - Segregates the entire subsurface except for one or more minerals.

SUBJECT TO SECTION 24 OF FPA - Subject to the provisions of section 24 of the federal power act of 1920 as specified by the order.

GEOHERMAL - Geothermal minerals are segregated from leasing pursuant to the geothermal mineral leasing law.

LOCATABLE/LEASABLE MINERALS - The Surface is segregated from one or more of the locatable minerals and/or leasable minerals.

LOCATABLE MINERALS - Locatable minerals segregated from location and entry under the mining laws.

LEASABLE MINERALS - Leasable minerals segregated from leasing under the mineral leasing laws.

NOT OPEN TO ENTRY - Minerals are not open to entry, leasing or sale. Used primarily on exchange cases when lands have been reconveyed and an opening order has not been published.

NONE - The document states that there is no segregation of the mineral estate.

CLOSED EXCEPT METALLIFEROUS - Locatable non-metalliferous minerals are segregated from location & entry under the mining laws. Locatable metalliferous minerals are open to entry.

OTHER OR COMBINATIONS - Specific or complex segregation. Must study document.

SALEABLE MINERALS - Saleable minerals segregated from sale under the mineral material sale laws.

SUBSURFACE (COMP) - The comprehensive subsurface estate is closed to all forms of entry. This consists of the entire subsurface whether mineral or non-mineral in origin.

Appendix 1 - Informative Appendix, Corner Classification Domain

Domain

Description

ALiquot Part Corner - A corner that establishes the limits of a division of a PLSS Section below the quarter division, such as a sixteenth corner or a government lot corner.

Angle Point - A point of survey where the alinement or boundary deflects from a straight line. Any break in bearing on a survey can be considered an angle point. A corner set by a private survey to establish the limits of a certified survey lot, a land subdivision lot, or other parcel survey is generally an angle point.

Auxiliary Meander Corner - A corner established at a suitable point on the meander line of a lake lying entirely within a quarter-section or on the meander line of an island falling entirely within a section and which is found to be too small to subdivide. A line is run connecting the auxiliary meander corner to a regular corner on the section boundary (BLM 1973, paragraphs 121 and 122). Also established where lines other than regular subdivision of section lines intersect a meander line (BLM 1973, sample plat).

Center Quarter Section Corner - A special case of a quarter-corner. "To subdivide a section into quarter sections, run straight lines from established quarter-section corners to the opposite quarter-section corners. The point of intersection of the lines thus run will be the corner common to several quarter sections, or the legal center of section." (BLM 1973, paragraph 3-87). The above definition is sometimes termed the "federal center quarter-section corner" and applies to BLM cadastral surveys. Under state jurisdiction alternate methods of section subdivision may exist and a non-federal method center quarter-section corner determined. In some cases, such as completion surveys, it is possible for one section to have more than one center quarter-section corner.

Intersection Point - The point of intersection to mark the intersection of one or more independently surveyed lines.

Crossing Closing Corner - Crossing Closing Corner is a term used to describe a corner set where a township or section line intersects (crosses) the line of a surveyed mineral claim, forest homestead claim, small holding claim or the like. "A closing corner monument is not set at intersection with the line of a surveyed mineral claim, forest homestead claim, small holding claim or the like, unless required to provide an interval of monumentation of one half mile or less. In instances crossing closing corners may be needed for operational or litigation purposes, in which event they should be provided for in the special instructions." (BLM 1973, paragraph 3-71).

LOCATION CORNER - A term applied to a position determined and marked by the locator (claimant) of a mineral right to distinctly and clearly define the boundaries of a mining claim on the ground. This is not the same as a Location Monument.

LOCATION MONUMENT - "When a mineral survey is situated in a district where there are no corners of the public survey and no other monuments within 2 miles, a location monument is established." (BLM 1973, paragraph 10-32.) "A location monument is most frequently used as a reference for one or more mineral surveys. It may also be used in any situation where no corner of an existing survey is available to provide a satisfactory connection for an isolated special survey. The monument is generally established in a conspicuous position with good visibility from every direction. The corner of a special survey may be designated as a location monument if it meets this qualification." (BLM 1973, paragraph 4-18). This definition includes U.S. Mineral Monuments and U.S. Location Monuments.

MEANDER CORNER - A meander corner is established at every point where a Township line, section line, Land Grant, Homestead Entry Survey, Donation Land Claim or other survey intersects the bank of a navigable stream or other meanderable body of water. (BLM, 1973, paragraph 3-117.)

MILE CORNER OR MILE POST - "The mile corner of a State, Reservation or other grant boundary does not mark a point of a subdivision; it is a station along the line, however, long usage has given acceptance to the term." (BLM 1973, paragraph 5-4). The mile post includes Half Mile post corner categories.

POINT ON LINE - A stake or object a surveyor has placed on a line for convenience, such as for a backsight. Points on line are set in prominent places to facilitate identification of lines. Modern BLM cadastral surveys may refer to points on line as Witness Points. Points on Line may also be Line Trees.

QUARTER-CORNER - A corner at the extremity of a boundary of a PLSS quarter-section, not including the section corner. Written as 1/4 not one fourth.

SECTION CORNER - A corner at the extremity of a PLSS section boundary.

SPECIAL MEANDER CORNER - "A corner established at: 1) the intersection of a surveyed subdivision of section line and a meander line of a body of water or an island; 2) the intersection of a computed center line of a section and a meander line of an island over 50 acres in area which is located entirely within a section." (BLM 1973, paragraphs 121 and 122).

SUBDIVISION OF SECTION CORNER - The BLM 1973 Manual distinguishes between one sixteenth section subdivision corners and minor subdivision corners, which are 1/16 and smaller subdivision corners. This difference is recognized, but for the purposes of definition a subdivision corner is any corner which defines a one sixteenth or smaller division of a section and is not a section, quarter-section, or center quarter-section corner. In some cases, subdivision corners may be corners of government lots, however, all corners of government lots may or may not be section subdivision corners.

TOWNSHIP CORNER - A corner at the extremity of a PLSS township boundary. Normally a PLSS township has four township corners. This does not include section, quarter-section or section subdivision corners which are on a PLSS township boundary.

WITNESS POINT - "A witness point is a monumented station on a line of the survey that is used to perpetuate an important location more or less remote from and without special relation to any regular corner." (BLM 1973, paragraph 4-17).

Domain Qualifiers

Description

CLOSING - "Closing corners are intended to be established where a closing line intersects a boundary already fixed in position. While the closing corner thereafter controls the direction of the closing line, a failure to place it at the true intersection does not alter the position of the line closed upon..." (BLM 1973, paragraph 3-73).

WITNESS - "A witness point is a monumented station on a line of the survey that is used to perpetuate an important location more or less remote from and without special relation to any regular corner." (BLM 1973, paragraph 4-17).

AMENDED - There are two primary applications of amended monuments stated in the BLM Manual of Instruction. In general a monument whose position no longer marks the true position for the corner. The monument is marked A.M. "If it is known that a mineral survey, homestead entry, small holding claim, right of way, reservoir, or other survey has been connected with a corner of an exterior subject to rectification, the fact is stated in the special instruction. In such a case the marks **A.M. (signifying amended monument)** are added to the original corner monument and the old corner is connected by course and distance to the new." (BLM 1973, paragraph 3-36.) "A recovered closing corner not

actually located on the line that was closed upon will determine the direction of the closing line, but not its legal terminus. The correct position is at the true point of intersection of the two lines. The new monument in those cases where it is required will always be placed at the true point of intersection. An off-line monument in those cases where a new monument is required will be marked **A.M. (for amended monument)** and will be connected by course and distance." (BLM 1973, paragraphs 5-41 and 8-16(6).)

AUXILIARY - A corner established at a suitable point on the meander line of a lake lying entirely within a quarter-section or on the meander line of an island falling entirely within a section and which is found to be too small to subdivide. A line is run connecting the auxiliary meander corner to a regular corner on the section boundary (BLM 1973, paragraphs 121 and 122). Also established where lines other than regular subdivision of section lines intersect a meander line (BLM 1973, sample plat).

Appendix 2 - Informative Annex, Ownership Type Domain

<u>Domain</u>	<u>Description</u>
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FEE SIMPLE OWNERSHIP - Absolute. A fee simple absolute is an estate limited absolutely to a man or woman and his or her heirs and assigns forever without limitation or condition.

GENERAL TENANCY - A tenancy which is not fixed and made certain in point of duration by the agreement of the parties.

JOINT TENANCY - An estate in fee simple, fee tail, for life, for years, or at will arising by the purchase or grant to two or more persons. Joint tenants have one and the same interest, accruing by one and the same time, and held by one and the same undivided possession. The primary incident of joint tenancy is survivorship, by which the entire tenancy on the decease of any joint tenant remains to the survivors, and at length to the last survivor.

LIFE ESTATE - An estate whose duration is limited to the life of the party holding it or the life of some other person. A legal arrangement whereby the beneficiary is entitled to estate for his or her life. Upon the death of the life tenant the property will go to the holder of the remainder interest or to the grantor by reversion.

TENANCY IN COMMON - A form of ownership whereby each tenant or right holder holds an undivided interest in property. Unlike a joint tenancy or a tenancy by the entirety, the interest of a tenant in common does not terminate upon his or her death. The percentage of Tenancy in Common interests pass on in the estate.

TENANCY BY THE ENTIRETY - A tenancy which is created between husband and wife and by which together they hold title to the whole with right of survivorship so that upon death of either, the other takes whole to the exclusion of the deceased heirs.

TENANCY IN PARTNERSHIP - Real Estate held by partnership and governed under the Uniform Partnership Act.

TENANCY FROM PERIOD-TO-PERIOD - A periodic tenancy which runs from month to month, year-to-year or other specified period of time. A Lease is an example of Tenancy from Period-to-Period.

TENANT AT WILL - One who holds the possession of rights by permission of the right grantor but without fixed term.

TIMESHARE OWNERSHIP - Timeshare ownership is a condominium ownership that extends for a specified time period as well for a specified space. This is a special case of a tenancy in common.

OWNER AFTER LIFE ESTATE - The tenant or right holder who holds the remainder or reversion rights to a life estate.

UNDIVIDED INTEREST - An undivided right or title, or title to an undivided portion of an estate, is that owned by two or more tenants in common or by joint tenants before partition. Held by the same title by two or more persons, whether their rights are equal as to value or quantity or unequal.

WITH REMAINDER - The remnant of an estate in land, depending upon a particular prior estate created at the same time and by the same instrument, and limited to arise immediately on the determination of that estate, and not in abridgement of it. A future interest created in some person other than grantor or transferor.

Appendix 3 - Informative Appendix, Survey System Domain

<u>Domain</u>	<u>Description</u>
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ASSESSOR PLAT - An Assessor Plat is a survey and description of one or more areas of land owned by two or more persons in severalty that is ordered to be done by a governing body with property taxation authority for the purpose of making sufficient and accurate determination of assessment, taxation, or tax title. The rules for Assessor Plats are defined by State law.

Business Rule:

1. This domain value requires that State and County be specified.

CEMETERY - A Cemetery divides the land into lots and rights-of-way. The rules for Cemetery Plat, which describe the extent of lots and rights-of-way, are controlled by State law.

Business Rule:

1. This domain value requires that State and County be specified.

CONDOMINIUM - A Condominium Plat is a map and description of rights to land or space that are defined by State law and contain allocated interests, common elements, and independent use units. The laws governing the creation, survey, and definition of condominiums are defined by State law.

Business Rule:

1. This domain value requires that State and County be specified.

FARM LOT - A Farm Lot is an elongated lot that occurs outside the Public Land Survey System on lands that were occupied prior to survey. These lots are generally elongated and generally run perpendicular to a body of water, such as a river.

Business Rule:

1. This domain value requires that State and County be specified.
2. Farm Lots are identified by a number.

FRENCH LONG LOT - A French Long Lot is an elongated lot that occurs outside the Public Land Survey System on lands that were occupied prior to survey and established by the French explorers and traders. These lots are generally elongated and generally run perpendicular to a body of water, such as a river.

Business Rule:

1. This domain value requires that State and County be specified.
2. French Long Lots are identified by a number.

GRANT OF LAND - Grants of Land are areas of land to which title has been confirmed or conferred to any person or organization by the U.S. for a particular reason or purpose.

HOMESTEAD ENTRY - A Homestead Entry is an entry under the U.S. land laws for the purpose of acquiring title to a portion of the public domain under the Homestead Laws. A Homestead Entry Survey is a metes and bounds survey entered under the Act of June 11, 1906 as amended that describes the Homestead Entry..

Business Rule:

1. This domain value requires that State be specified.
2. Homestead Entry Surveys are identified by a number.

INDIAN ALLOTMENT - An Indian Allotment is an allocation of a parcel of public lands or Indian Reservation lands to a Native American for his or her individual use. Indian Allotments are identified by either a name or a number.

Business Rule:

1. This domain value requires that State be specified.

LAND GRANT - A Land Grant is an areas of land to which title was conferred by a predecessor government and confirmed by the U.S. Government after the territory in which it is situated was acquired by the U.S.

Business Rule:

1. This domain value requires that State be specified.

MINERAL SURVEY - A Mineral Survey is a survey of one or more lode claims, placer claims, or mill sites with all their notes and plats. This type of survey is executed by a U.S. Mineral Surveyor for the purposes of marking the legal boundaries of mining claims on the public domain. Mineral Surveys are identified by number. Mineral surveys may be subdivided into lodes, placers or millsites.

Business Rule:

1. This domain value requires that State be specified.

PLAT OF SURVEY - A Plat of Survey is a document prepared by a registered land survey for the purposes of clarifying property boundaries, generating a legal description, or establishing the location of improvements or topographical characteristics.

Business Rule:

1. This domain value requires that State be specified.

PROTRACTION BLOCK - A Protraction Block is a designation for sections of uncertain acreage which lie between the coordinate based interior and the prior surveyed boundaries of record which generally form the exterior perimeters of the protracted areas. (BLM IM 93-353, 9/30/93).

SMALL HOLDING CLAIM - A Small Holding Claim is an entry in which the entryman and his or her predecessors of interest maintained continuous, adverse, actual, bona fide possession of public lands for at least 20 years prior to BLM Cadastral Survey of the lands involved and is covered by Acts of March 3, 1891 and June 15, 1922 as amended. Small Holding Claims are identified by number.

Business Rule:

1. This domain value requires that State be specified.

SMALL TRACTS ACT - A Small Tracts Act Survey is a parcel of land surveyed under the authority of the Small Tracts Act, Public Law 97-465, January 12, 1983. It applies to parcels within the National Forest System which may be sold, exchanged, or interchanged. The acreage of the parcels may be: (1) 40 acres or less when interspersed with adjacent lands not in federal ownership, (2) 10 acres or less when encroached upon by color of title improvements, or (3) Rights of way, reserved or acquired, which are no longer needed by the federal government and are surrounded by lands not owned by the federal government.

Business Rule:

1. This domain value requires that State and PLSS Township be specified.

SUBDIVISION - A Subdivision is a unit of land defined by a survey which is governed by State subdivision law or local ordinance. A subdivision plat is a simultaneous conveyance where all divisions of land within the subdivision plat have equal standing with each other.

Business Rule:

1. This domain value requires that State and County be specified.

SURVEY - A Survey is a measurement of the land recorded on a survey, map, that describes areas of land and is completed by a State certified Registered Land Surveyor and filed according to State laws.

Business Rule:

1. This domain value requires that State and County be specified.

TEXAS LAND GRANT - A Texas Land Grant is grant of land made to a citizen of the nation of Texas prior to Texas Statehood. It is governed by the laws of the State of Texas.

Business Rule:

1. This domain value requires that State be specified as TX.

TOWNSITE - A Townsite is an area which has been segregated for urban development, often subdivided into blocks which are further subdivided into lots. One type of townsite is a survey of street and lot boundaries executed to segregate from public lands an area of land qualifying under the townsite laws. Another type of Townsite may be a city subdivision.

Business Rule:

1. This domain value requires that State be specified.

UNITED STATES SURVEY - A United States Survey is a metes and bounds survey executed to comply with one of various regulations for entry of public lands in Alaska. These surveys are identified by a number or a letter-number designation.

Business Rule:

1. This domain value requires that State be specified.

Appendix 4 - Informative Appendix, Source Type Domain

<u>Domain</u>	Description
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ABRIDGEMENT - A summary of another and larger work, wherein the principal ideas of the larger work are summarily contained.

ABRIDGEMENT OF FINAL JUDGEMENT - An abridgement is a condensation or reduction. An abridgement to final judgement is a reduction of a final judgement.

ABSTRACT - A summary that comprises or concentrates in itself the essential qualities of a larger thing or of several things. A lesser quantity containing the virtue and force of a greater quantity; an abridgement.

ABSTRACT OF TITLE - A condensed history of the title to land, consisting of a synopsis or summary of the material or operative portion of all the conveyances, of whatever kind or nature, which in any manner affect said land, or any estate or interest therein, together with a statement of all liens, charges, or liabilities to which the same may be subject, and of which it is in any way material for purchasers to be apprised. An epitome of the record evidence of title, including maps, plats, and other aids.

AERIAL PHOTOGRAPH - An image taken by an airborne unit. These may be captured on film or disk and may be one of a series of photographs taken for stereoplotting and mapping or may be a stand alone image.

AFFIDAVIT - A written or printed declaration or statement of facts, made voluntarily, and confirmed by the oath or affirmation of the party making it, taken before a person having authority to administer such oath or affirmation.

AGREEMENT - The writing or instrument evidencing the intention between two or more parties with respect to the effect upon their relative rights and duties of certain past or future facts or performances. The consent of two or more parties concurring respecting the transmission of some property, right, or benefits, with the view of contracting a mutual obligation. Examples of agreements include:

Condominium Agreement - An agreement regarding individual ownership units, generally in a multi-family structure, based on a legal description of the airspace the unit actually occupies, plus an undivided interest in the ownership of the common elements.

Holding Tank Agreement - The property owner agrees to adhere to a maintenance schedule for waste water holding tank in order to obtain a permit from the county to allow its construction or continued use.

Non-Point Agreement - An agreement between a landowner and an agency that certain conservation installations that were partially funded by the state will be maintained.

Security Agreement - An agreement which creates or provides for a security interest between the debtor and a secured party.

Trust Agreement - An agreement between two or more parties with respect to the effect upon their relative rights and duties pertaining to the legal entity created by a grantor for the benefit of designated beneficiaries.

Septic System Agreement - The property owner agrees to maintain a private septic system in order to obtain a permit from the county to allow its construction.

Well Agreement - Two or more property owners agree to maintain a private well serving all the properties, but the well is located on only one of the properties.

ANNEXATION - The act of attaching, adding, joining, or uniting one thing to another; generally spoken of the connection of a smaller or subordinate thing with a larger or principal thing. Term is usually applied with respect to land or fixtures as: the acquisition of territory or land by a nation, state or municipality; the legal incorporation of a town or city into another town or city.

AMENDED PROTRACTION DIAGRAM - An existing protraction diagram which has been amended under the standards of BLM IM-WO-93-353.

ARTICLES OF INCORPORATION - The basic instrument filed with the appropriate governmental agency on the incorporation of a business. These are sometimes called the certificate of incorporation.

ASSESSMENT - A document stating a valuation or a determination as to the value of property. It is often used in connection with assessing property taxes or levying of property taxes.

ASSIGNMENT - A transfer or making over to another of the whole of any property, real or personal, in possession or action, or of any estate or right therein. The transfer by a party of all of its rights to some kind of property, usually intangible property such as rights in a lease, mortgage, agreement of sale or a partnership. Tangible property is more often transferred by possession and by instruments conveying title such as a deed. Two examples are described below.

Assignment of Land Contract - An assignment is a transfer or making over to another of the whole of any property, real or personal, in possession or in action, or of any estate or right therein. An Assignment of Land Contract transfers an existing Land Contract to another party.

Assignment of Rent - An assignment is a transfer or making over to another of the whole of any property, real or personal, in possession or in action, or of any estate or right therein. An Assignment of Rent transfers the rental payments from one party to another.

Assignment of Mortgage - An assignment is a transfer or making over to another of the whole of any property, real or personal, in possession or in action, or of any estate or right therein. An Assignment of Mortgage transfers the mortgage payments from one party to another.

AWARD OF DAMAGES - A written decision to monetarily compensate a party who has suffered loss due to the action or inaction of another, as determined by a deciding authority.

BOUNDARIES - Every separation, natural or artificial, which marks the confines or line of division of two contiguous properties.

BURIAL SITE - Documents which locate human burial mounds and plots not included in a cemetery plat.

BYLAWS - A document enumerating the regulations, ordinances, rules or laws adopted by an association or corporation or the like for its internal governance. Bylaws define the rights and obligations of various officers, persons or groups within the corporate structure and provide rules for routine matters such as calling meetings and the like.

CERTIFICATE - An obligation of the government entitling owner to secure designated quantity of land by following the requirements of law. It contains a description of the land as it appears on the register and the name and address of the proprietor and is prima facie evidence of the truth of the matters therein set forth.

CERTIFIED SURVEY - A Certified Survey is a property Survey done according to the standards of Administrative Code and recorded at the Register of Deeds.

CONTRACT - An agreement between two or more persons which creates an obligation to do or not to do a particular thing. The essential components of a contract are: competent parties, a subject

matter, legal consideration, mutuality of agreement, and mutuality of obligation. There are many classifications of contracts depending on the elements in them that brought to prominence.

COVENANTS & RESTRICTIONS - A contract or provision in a deed between grantor and grantee which restricts or limits grantee's use and occupancy of land; generally, purpose behind restrictions and covenants is to maintain or enhance value of lands adjacent to one another by controlling nature and use of surrounding lands.

DECLARATION - A document by the owner of property which is recorded in order to establish a legal order upon the property, such as a condominium (by a declaration of condominium or master deed), a system of cross-easements (by a declaration of easements) or a homeowners association (by declaration of covenants, restrictions and easements).

DEED - A conveyance of realty; a writing signed by grantor, whereby title to realty is transferred from one to another. A written instrument, signed, and delivered, by which one person conveys land, tenements, or hereditament to another. Examples of deeds include:

Administrator's Deed - A deed signed by a person appointed by the court to administer the assets and liabilities of a decedent, as grantor.

Condominium Deed - A deed by which one person conveys to another absolute individual ownership units, generally in a multi-family structure, based on a legal description of the airspace the unit actually occupies, plus an undivided interest in the ownership of the common elements, which are owned jointly with other condominium unit owners.

Executor's Deed - A deed signed by a person appointed by a testator to administer the disposition of property of a decedent, as grantor.

Guardian's Deed - A deed signed by a person lawfully invested with the power, and charged with the duty, of taking care of the person and managing the property and rights of another person who, for defect of age, understanding, or self-control, is considered incapable of administering his own affairs.

Personal Representative's Deed - A deed signed by a person who manages affairs of another because of incapacity or death such as an executor or an administrator.

Quitclaim Deed - A deed signed by grantor, whereby title to realty is transferred from one to another operating by way or release; that is, intended to pass any title, interest, or claim which the grantor may have in the premises, but not professing that such title is valid, nor containing

any warranty or covenants for title. The federal government conveys land to others with quitclaim deed. Examples of quit claim deeds include:

Government Land Patent - A deed issued by a government or state for the conveyance of some portion of the public domain.

Marshall's Deed - A document giving ownership rights in property to a buyer at a marshall's sale (i.e. a sale held by a marshall to pay a court judgment against the owner of the property). Deed given at marshall's sale in foreclosure of a mortgage. The giving of said deed begins a statutory redemption period. In some states or locales referred to as a "sheriff's deed."

Reversionary Right Quitclaim Deed - A quitclaim deed providing that a future interest under which a grantor retains a present right in the property being conveyed.

Sheriff's Deed - A document giving ownership rights in property to a buyer at a sheriff's sale (i.e. a sale held by a sheriff to pay a court judgment against the owner of the property). Deed given at sheriff's sale in foreclosure of a mortgage. The giving of said deed begins a statutory redemption period.

Receiver's Deed - A deed signed by a person who has been appointed by a court for the purpose of preserving property of a debtor pending an action against such debtor.

Tax Deed - The deed given upon a sale of real property made for non-payment of taxes. The deed whereby the officer of the law undertakes to convey the title of the property to the purchaser at the tax sale. A proof of ownership of land given to the purchaser by the government after the land has been taken from another person by the government and sold for failure to pay taxes.

Timber Deed - A deed conveying the right to cut and remove timber on the demised premises.

Trustee's Deed - A deed which establishes a trust and is generally an instrument which conveys legal title to property to a trustee and states the authority and conditions that bind the trustee in dealing with the property held in trust.

Warranty Deed - A deed signed by grantor, whereby grantor warrants good, clear title. A deed which explicitly contains covenants concerning the quality of title it conveys. In some states, statutes impute warranties or covenants from the use of specific words, such as grant.

The usual covenants of title are warranties of seisin, quiet enjoyment, right to convey, freedom from encumbrances and defense of title as to all claims.

DISTRICT - One of the territorial areas into which an entire state or country, county, municipality or other political subdivision is divided, for judicial, political, electoral, or administrative purposes.

EASEMENT - A document describing the nonpossessing interest held by one person in the land of another whereby the first person is accorded partial use of such land for a specific purpose. An example is described below.

Drive-way Easement - A document describing the right of ingress and egress to a single residential or commercial property. It is usually an easement across public land, such as a Department of Transportation right of way.

EXECUTIVE DIRECTIVE - A notice of performance, conduct, or regulation that is issued by the executive branch for the purposes of implementing public policy as established by the executive branch.

EXECUTIVE ORDER - An order or regulation issued by the President or some other administrative authority under his direction for the purpose of interpreting, implementing, or giving administrative effect to a provision of the Constitution or some law or treaty. To have effect such orders must be published in the Federal Register.

EXECUTIVE OTHER - Any other executive branch or its agencies that produces a document that affects rights and interest in land or the spatial extent of those rights and interests.

IBLA - The Interior Board of Land Appeals (IBLA) exercises jurisdiction over cases involving appeals from decisions rendered by departmental officials relating to all survey, minerals, and lands cases across all public domain lands and disposition of mineral resources in certain acquired lands and in the submerged lands of Outer Continental Shelf.

INTERIM CONVEYANCE - An Interim Conveyance is a document issued by the United States to the party entitled to the lands which conveys to and vests in the recipient the exact same right, title and interest in and to lands as though a US Patent were issued, subject to valid existing rights and such conditions and reservations authorized by law as are imposed, pending survey. ANILCA Section 1410.

JUDGMENT - The official and authentic decision of a court of justice upon the respective rights and claims of parties to an action or suit therein litigated and submitted to its determination. Examples of judgments include:

Divorce Judgment - The decision of the court resolving the dispute and determining the rights and obligations of the parties to the legal separation of man and wife.

Final Judgment - The decision of the court resolving a dispute and determining the rights and obligations of the parties which leaves nothing open to further dispute and which sets at rest cause of action between parties.

Revised Final Judgment - A review and re-examination of an existing final judgment.

JUDICIAL ORDER - An order which involves the exercise of judicial discretion and affects final result and litigation. This document type includes condemnations and decrees of judgement.

JUDICIAL SALE - - A sale conducted under a judgement, order, or supervision of a court as in sale under a petition for partition of real estate.

LAND CONTRACT - A contract for the purchase and sale of land upon execution of which title is transferred. Term commonly refers to an installment contract for the sale of land whereby purchaser (vendee) receives the deed from the owner (vendor) upon payment of final installment. The vendor/seller finances the sale for the buyer and retains legal title to the property (deed) as security for payment of contract price. May also be called "contract for deed," "installment land contract," or "land sale contract."

LEASE - Any agreement which gives rise to relationship of landlord and tenant or lessor and lessee. It is a contract for exclusive possession of lands or tenements for determinant period. Leases are often classified according to determinant period.

LEGISLATION FEDERAL - The result of the act of passing laws by the Congress.

LEGISLATION LOCAL - The act of giving or enacting laws by a local body. The enactment of laws by a democratic body in a local jurisdiction.

LEGISLATION STATE - The result of passing and signing into law laws by a state. The enactment of laws by a democratic body in a state.

LIEN - A claim, encumbrance, or charge on property for payment of some debt, obligation or duty. Qualified right of property which a creditor has in or over specific property of his debtor, as security for the debt or charge or for performance of some act. Right or claim against some interest in property created by law as an incident of contract. Right to enforce charge upon property of another for payment or satisfaction of debt or claim. Right to retain property for payment of debt or demand. Security for a debt, duty or other obligation. A charge against or interest in property to secure payment of a debt or performance of an obligation. Examples of liens include:

Construction Lien - A lien on property for payment of some debt, obligation or duty that arises by law and attaches to real estate to secure payment of a party who improved the property through the rendering of labor or other services or the furnishing of materials or other supplies. Another name for this lien is mechanics' lien.

Federal Tax Lien - A lien on property for payment of some debt, obligation or duty owed in regards to the repayment of a Federal Tax obligation.

LIS PENDENS - A notice of the pendency of an action involving real estate recorded in the registry of deeds. It is a notice that there is a lien or other title limiting action pending against the real estate.

MONUMENT TIE SHEET - A diagram describing the placement and accessories of a corner, usually a corner of the Public Land Survey System. The form, content, and filing of these sheets is often governed by state law or local ordinance.

MORTGAGE - A document describing a loan or interest held by a party against the real estate of another.

MORTGAGE RELEASE - A document indicating that a mortgage has been satisfied.

OPTION - A contract made for consideration to keep an offer open for prescribed period; a right, which acts as a continuing offer, given for consideration, to purchase or lease property at an agreed upon price and terms, within a specified time. An option is an agreement which given the optionee the power to accept an offer for a limited time. An option to purchase or sell is not a contract to purchase

or sell, as optionee has the right to accept or to reject the offer, in accordance with its terms, and is not bound.

ORDER - A document containing the direction of a court or judge made or entered in writing, and not included in a judgment, which determines some point or directs some step in the proceedings. An Example of an order includes:

Judicial Order - The direction of a judge in determining some point or directing some step in a proceeding.

ORDINANCE - A rule established by authority; a permanent rule of action; a law or statute. In its most common meaning, the term is used to designate the enactments of the legislative body of a municipal corporation. It designates local law of a municipal corporation, duly enacted by the proper authorities, prescribing general, uniform and permanent rules of conduct relating to the corporate affairs of the municipality. An ordinance is the equivalent of the municipal statute, passed by the city council, or equivalent body and governing matters not already covered by federal or state law. Ordinances commonly govern zoning, building, safety, etc. matters of municipality.

OTHER MAP - - Any other map of survey that contains information about real property rights, transfer, or monumentation.

PARTIAL RELEASE - A writing or an oral statement manifesting an intention to discharge another from a portion of an existing or asserted duty; a clause in blanket mortgage directing mortgagee to release specified parcels from lien upon payment of certain sum.

PLAT - A map of a specific land area such as a town, section, or subdivision showing the location and boundaries of individual parcels of land subdivided into lots, with streets, alleys, easements, etc., usually drawn to a scale. Examples of plats include:

Condominium Plat - A map of a single real property parcel in which individual ownership units (based on a legal description of the airspace the unit actually occupies and showing the location and boundaries of individual units including easements, etc.), as well as common areas of the building and ground jointly owned by the individual owners as common elements.

Plat of Survey - A document generated by a land surveyor for the purposes of fixing the boundaries of property. Once a plat of survey is approved or stamped legal descriptions are defined by referring to the given map and its accompanying notes.

PROTRACTION DIAGRAM - "A diagram representing the plan for the extension of the rectangular system of surveys over unsurveyed public lands, based upon the computed values for the corner positions, is termed a protraction diagram." (BLM, 1973, paragraph 2-14).

PUBLIC LAW NOTICE - Public law is the branch of law concerned with the state in its political or sovereign capacity, including constitutional and administrative law, and with the definition, regulation, and enforcement of rights in cases where the state is regarded as the subject of the right or object of duty. Notices of public law that come from the executive branch are considered executive public law notices. This includes the agencies of the executive branch which are represented by the cabinet secretaries. These notices do not have the effect of law.

SATELLITE IMAGE - Digital data captured by an orbiting body over a known sets of wavelengths.

SATISFACTION - The discharge of an obligation by paying a party which is due to him (as on a mortgage, lien, note, or contract), or what is awarded to him by the judgment of a court or otherwise.

SPECIAL ASSESSMENT - A valuation in the nature of a tax levied upon property according to benefits conferred on the property, intended to offset cost of local improvements such as sewer, water and streets, which is selectively imposed on beneficiaries. It differs from a general tax in that it is levied for a specific purpose and in an amount proportioned to the direct benefit of the property assessed.

STIPULATION - A material condition, requirement, or article in an agreement.

SURVEY NOTES - The information contained in field notes from field observations.

TERMINATION - An ending, usually before the end of the anticipated term of the lease or contract, which termination may be by mutual agreement or may be by exercise of one party of one of his remedies due to the default of the other party. Under U.C.C., "termination" means legally ending a contract without its being broken by either side.

TREATY - International treaties or agreements are arrangements of a contractual character between different countries or organizations of states (foreign) creating legal rights and obligations between the parties.

TRUST - A legal entity created by a grantor for the benefit of designated beneficiaries under the laws of the state and the valid trust instrument.

U.C.C. - Uniform Commercial Code. One of the Uniform Laws drafted by the National Conference of Commissioners on Uniform State Laws and the American Law Institute governing commercial

transactions (including sales and leasing of goods, transfer of funds, commercial paper, bank deposits and collections, letters of credit, bulk transfers, warehouse receipts, bills of lading, investment securities, and secured transactions). The U.C.C. has been adopted in whole or substantially by all states. An example of a U.C.C. document includes:

U.C.C. Financing Statement - Under the Uniform Commercial Code, a financing statement is used under Article 9 to reflect a public record that there is a security interest or claim to the goods in question to secure a debt. The financing statement is filed by the security holder with the Secretary of State, or similar public body, and as such becomes public record. When the document is filed with the appropriate government agency, all potential lenders and third parties are put on constructive notice of the security interest.

VARIANCE - A document evidencing permission to depart from the literal requirements of a zoning ordinance.

WAIVER - A document wherein the intentional or voluntary relinquishment of a known right is made, or such conduct as warrants an inference of the relinquishment of such right, or when one dispenses with the performance of something he is entitled to exact or when one in possession of any right, whether conferred by law or by contract, with full knowledge of the material facts, does or forbears to do something the doing of which or the failure of forbearance to do which is inconsistent with the right, or his intention to rely upon it..

Appendix 5 - Informative Appendix, Offshore Coastal Cadastral Boundaries

I. Baseline for Maritime Limits (ambulatory)

Primary Agency: NOAA

Spatial extent: Average of lower low tides (MLLW), or closing lines (bays and rivers)

Legal Source: Presidential Proclamation No 5928. 3 C.F.R. § 547 (1989)??

Data Source: none

Notes: DOS Baseline from MMS Baseline

II. Baseline for Submerged Lands Act (static)

Primary Agency: MMS

Spatial extent: "ordinary low water" interpreted as MLLW as depicted on NOS nautical charts

Legal Source: Submerged Lands Act, sec. 1312. U.S. Code (43 U.S.C. §§ 1301 et seq.)

Data Source: MMS FTP site <ftp://mmspub.mms.gov/pub/mapping/>

Notes: To be official, points must be ratified by states.

Issues: See issue#1 below

III. Seaward State Boundary (SSB)

Primary Agency: MMS

Spatial extent: 3nm (9nm in GOM) from static baseline

Legal Source: Submerged Lands Act, sec. 1312. U.S. Code (43 U.S.C. §§ 1301 et seq.)
also, 30 CFR 256.8

Data Source: <ftp://mmspub.mms.gov/pub/mapping/>

Original Metadata: Attached (page 4)

Notes: To support Federal land ownership and mineral resource management.

Issues: See issue#1 below

See issue#2 below

IV. Revenue Sharing Boundary (Section 8(g) of OCSLA)

Primary Agency: MMS

Spatial extent: SSB + 3nm (based on static baseline)

Legal Source: Outer Continental Shelf Lands Act. U.S. Code (43 U.S.C. § 1337(g))

Data Source: MMS FTP site (<ftp://mmspub.mms.gov/pub/mapping/>)

Original Metadata: Attached (page 10)

Notes: Completed, with some errors

Issues: See issue#1 below

See issue#2 below

V. Territorial Sea (TS)

Primary Agency: NOAA

Spatial extent: 12nm beyond ambulatory baseline (NOAA)

Legal Source: Presidential Proclamation No 5928 (3 C.F.R. § 547 (1989)), consistent with international Law as stated in the UN Convention on the Law of the Sea

Data Source: Non-official Coastal Services Center

Original Metadata: Attached (page 16)

Notes: Ambulatory boundary. Boundary between a nation's waters and the high seas.

Issues: See issue#2 below

VI. Contiguous Zone

Primary Agency: NOAA

Spatial extent: zone between SSB and 12nm limit beyond ambulatory baseline

Legal Source: LOS Convention, art 33(2)

Data Source: none

Original Metadata: none.

Notes: For international purposes, assumed to be subsumed by TS in 1988

VII. Continental Shelf Limit

Primary Agency: MMS as requested by DOS (MOU 10/5/94)

Spatial extent: 200m isobath?

Legal Source: 1958 Convention on the Continental Shelf, LOS Convention, art. 76

Data Source: Florida Marine Research Institute

Original Metadata: Attached (page 22)

Notes: No legal significance for the U.S.??

Issues: No vertical datum or quantitative description is specified

VIII. Exclusive Economic Zone

Primary Agency: NOAA & MMS?

Spatial extent: 200nm from ambulatory baseline, or maritime boundary agreed upon by international treaty

Legal Source: Presidential Proclamation 5030, March 10, 1983 (3 C.F.R. 22), and the Magnuson Act

Data Source: NOAA Special Projects Office (<ftp://140.90.161.100/datasets/efh/>)

Original Metadata: Attached (page 28)

Notes:

Issues: See issue#2 below

IX. Offshore Lease Blocks

Primary Agency: MMS

Spatial extent: Dependent on the Official Protraction Diagram by MMS

Legal Source: Submerged Lands Act (30 C.F.R. 256.8b)

Data Source: MMS FTP site (<ftp://mmspub.mms.gov/pub/mapping/>)

Original Metadata: Attached (page 30)

Notes:

Issues:

X. International Maritime Boundaries

Primary Agency: MMS & NOAA

Spatial extent: Dependent on boundary

Legal Source: The following notices have been published which have defined the United States maritime boundaries and fishery conservation zone established March 1, 1977: Public Notice 506, Federal Register, Vol. 41, No. 214, November 4, 1976, 48619-20; Public Notice 526, Federal Register, Vol. 42, No. 44, March 7, 1977, 12937-40; Public Notice 544, Federal Register, Vol. 42, No. 92, May 12, 1977, 24134; Public Notice 4710-01, Federal Register, Vol. 43, No. 7, January 11, 1978, 1658; Public Notice 585, Federal Register, Vol. 43, No. 7, January 11, 1978, 1659; Public Notice 910, Federal Register, Vol. 49, No. 155, August 9, 1984, 31973. (DOD document 2005.1-M)

Data Source: NOAA Special Projects Office as part of the EEZ coverage (<ftp://140.90.161.100/datasets/efh/>) and MMS FTP site (<ftp://mmspub.mms.gov/pub/mapping/>)

Original Metadata: Attached (page 36)

Notes: There appears to be a difference between the NOAA maritime boundaries in the USEEZ coverage and the MMS coverage. There are several places where the difference between these two coverages is around .001Decimal Degrees (400ish meters). The maritime boundary points are published in the Federal Register to the nearest second (.00027DD), so something does not seem right. The problem might stem from tolerances, projections, or single versus double precision in ARC/INFO.

Coordinates are published to the nearest second. Several references to ambulatory points are made (e.g. "the international maritime boundary in the Gulf of Mexico shall begin at the center of the mouth of the Rio Grande, wherever it may be located...")

XI. National Marine Sanctuary Boundaries

Primary Agency: NOAA

Spatial extent: Dependent on Sanctuary

Legal Source: Code of Federal Regulations (15 C.F.R. 922.41)

Data Source: Florida Marine Research Institute, Coastal Services Center, Center for Marine

Conservation

Notes: These issues are currently in the process of be corrected by NOAA Office of Charting

Issues: See appended nms_bnd_issues.xls.

XII. National Estuarine Research Reserve System Boundaries

Primary Agency: NOAA

Spatial extent: Dependent on Reserve

Legal Source: Coastal Zone Management Act, as amended, sec. 315 (16 U.S.C. § 1461)

Data Source: Florida Marine Research Institute, Coastal Services Center, Center for Marine Conservation

Notes: Management plans with boundaries must be approved by NOAA

Issues:

Special Issues:

issue#1: MMS Metadata/spatial data inconsistencies: " Coordinates for OCS blocks, baseline, and projected boundaries are calculated quantities and have been defined to be correct to 3 decimal places of a meter. Coverages have been topologically cleaned with Arc/Info's 'CLEAN' command using default tolerances." Problem: By using ARC/INFO's "CLEAN" command, 3decimal places of a meter can not be preserved, ARC/INFO uses a tolerance of 1/10,000 of the width or height of the BND, whichever is greater. "Latitude_Resolution: 0.00000001 Longitude_Resolution: 0.00000001 Geographic_Coordinate_Units: Decimal degrees." It appears that the tolerance used for this coverage is 244 meters (.002039 Degrees).

issue#2: Ocean boundaries are NOT measured by lines running parallel to the coast, rather they are enclosed by an "envelope of arcs" extending from the basepoints. Offshore boundary lines are measured along an arc over the earth's ellipsoidal surface (chord length), therefore arc distance varies with latitude and azimuth corresponding to variations in the radius of the earth's surface. As a result, the arc length must be computed (in three-dimensional space) separately for each stretch of coastline even though the projection distance remains unchanged. -MMS technical document. Problem: Many boundaries have been created using a buffer function in a GIS. This process does not take into account chord length or distortion due to projection and often does not result in an accurate representation of the "envelope of arcs."